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Interagency Task Force on Product Liability

Final Report

**Council of Economic
Advisers**

**Office of Management
& Budget**

**Department of Housing
& Urban Development**

**Department of Health,
Education & Welfare**

**Small Business
Administration**

**Under Direction of
The Department of Commerce**

**Department of
Transportation**

**Department of
the Treasury**

Department of Labor

Department of Justice

**Consumer Product Safety
Commission**




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Interagency Task Force on Product Liability

Final Report

U.S. DEPARTMENT OF COMMERCE



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THE UNDER SECRETARY OF COMMERCE
Washington, D.C. 20230

PREFACE


This report represents the culmination of over one year of effort by a Federal Interagency Task Force in the study of the topic of product liability. This endeavor has involved Federal agencies, independent contractors, private organizations, as well as consumers, manufacturers, distributors, retailers and insurers. While the report does not purport to answer all questions that have arisen in the field, it provides the most thorough analysis of problems in the product liability area that has been published in the United States.

It is important to emphasize the independent nature of this report. The Chairman of the Working Task Force group and his staff were not subject to any pressures "to find" in favor of one interest group or another -- his basic policy guideline was to be objective, disclose the facts (or lack thereof), and consider the competing concerns of all groups affected by the product liability problem.

As Chairman of the Task Force, I wish to acknowledge the dedicated staff work at the Department of Commerce and the steadfast assistance given to my Department by the other member agencies. The agencies willingly gave the time of their talented personnel to this project. They assisted in the planning and development stage and reviewed and commented about drafts of each chapter. While not every comment of every agency has been incorporated, the result of the Interagency review process was to enhance the balance and objectivity of the report.

While this report does not represent the views of the Administration, it is submitted for its use as well as the use of Federal and state legislators, consumer, insurer and business groups and others who are interested in product liability problems.

As anyone familiar with the problem knows, many solutions have been voiced by groups that have a strong self-interest in the topic. It is hoped that this report will allow all concerned to appreciate both the strengths and weaknesses of their respective positions and that it will lead to constructive solutions.


Sidney Harman

This report represents the work of a large number of people both in government and in private organizations. Some government personnel have devoted their full time to this project; others have very willingly given of their time whenever they were asked to do so. A comprehensive and objective study of this complex subject could not have been completed without the cooperation and support of all of these individuals: they brought both varied disciplines and diverse points of view to the project.

This Final Report of the Task Force represents the synthesis of these efforts and a balancing of the many interests that are affected by product liability problems.

The sources used by the Task Force are described in Chapter I of this report. As a law professor for the past ten years, I have seen most research efforts conducted on an individual basis. On this project, I have witnessed the invaluable dividends that can result when a large group of talented people work together toward a common research goal. I would like to acknowledge, with deepest appreciation, the many individuals whose time and talents have created this report.



Victor E. Schwartz
Chairman, Working Task Force
Federal Interagency Task Force
on Product Liability

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Department of Housing & Urban Development
Department of Justice
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The Advisory Committee on Product Liability

The contributions of the Advisory Committee to the Under Secretary of Commerce are discussed in Chapter I and in statements by several members who are cited throughout the Final Report. As is noted in Chapter I, this report does not necessarily represent the views of individual members; nor should it be considered to represent a consensus of the Committee. Comments of the members regarding the report will be published separately.

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THE SYMPOSIUM ON PRODUCT LIABILITY - July, 1976

The symposium is described in Chapter VII, and an edited version of the transcript of the proceedings will appear in the Selected Working Papers. The contribution of the participants is acknowledged with deep appreciation. A listing of the participants follows:

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TABLE OF CONTENTS

CHAPTER I-THE NATURE OF THIS REPORT AND THE CAUSES OF THE PRODUCT LIABILITY PROBLEM

	<u>Page</u>
INTRODUCTION.....	I-1
THE BASIS FOR A FEDERAL STUDY ON PRODUCT LIABILITY.....	I-3
THE FEDERAL INTERAGENCY TASK FORCE ON PRODUCT LIABILITY...	I-5
THE TASK FORCE.....	I-5
THE WORKING TASK FORCE.....	I-5
THE STAFF.....	I-5
THE TASK FORCE'S GENERAL GUIDELINES OF THE SCOPE OF THE STUDY.....	I-6
GENERAL SOURCES OF INFORMATION.....	I-7
INTERAGENCY COMMENTARY.....	I-7
PRODUCT LIABILITY SYMPOSIUM.....	I-8
NOTICE IN THE FEDERAL REGISTER.....	I-8
PRODUCT LIABILITY ADVISORY COMMITTEE TO THE UNDER SECRETARY OF COMMERCE.....	I-8
INFORMATION FROM INDUSTRY ASSOCIATIONS AND INTEREST GROUPS.....	I-9
INFORMATION REGARDING CONSUMER PERSPECTIVES ON THE PRODUCT LIABILITY PROBLEM.....	I-10
HEARINGS UNDERTAKEN BY CONGRESS.....	I-11
THE TASK FORCE'S INDEPENDENT CONTRACTOR REPORTS.....	I-11
THE LEGAL STUDY.....	I-12
INSURANCE STUDY.....	I-14
INDUSTRY STUDY.....	I-15
AN OVERVIEW OF THE CONTENTS OF THIS REPORT.....	I-18
THE CAUSES OF THE PRODUCT LIABILITY PROBLEM.....	I-20
INTRODUCTION.....	I-20
DISCUSSION OF THE CAUSES.....	I-21
Cause I: Liability Insurance Ratemaking Procedures..	I-21
Cause II: Manufacturing Practices.....	I-24
Cause III: The Tort-Litigation System.....	I-26
Other Causes.....	I-29
Inflation.....	I-29
Consumer and Worker Awareness.....	I-29
Increases in the Number and Complexity of Products.....	I-30

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Product Misuse.....	I-30
NOTES TO CHAPTER I.....	I-32
CHAPTER II-PRODUCT LIABILITY-A LEGAL FRAMEWORK	
INTRODUCTION.....	II- 1
AN OVERVIEW OF PRODUCT LIABILITY LAW.....	II- 3
INTRODUCTION.....	II- 3
SOME MAJOR ISSUES IN PRODUCT LIABILITY LAW.....	II- 6
A Manufacturer's Duty to Design Its Product	
Properly.....	II- 6
Introduction.....	II- 6
Defectiveness and Strict Liability.....	II- 6
Strict Liability in Design Cases.....	II- 8
The User's Conception of the Product.....	II-10
The Manufacturer's Ability to Make the Product	
Safer.....	II-11
Conclusion.....	II-12
The Manufacturer's Duty to Warn Users or Consumers	
About Hazards Connected With Its Product.....	II-12
Introduction.....	II-12
Theories of Recovery.....	II-13
Factual Considerations.....	II-15
Conclusion.....	II-18
How Does the Conduct of the Product User or Consumer	
Affect His Claim?.....	II-19
Introduction.....	II-19
Assumption of Risk.....	II-20
Misuse.....	II-23
Contributory Negligence.....	II-25
Comparative Fault.....	II-26
A Product Liability Defendant's Right to Shift the	
Cost of Accidents Onto Others.....	II-27
Introduction.....	II-27
Suits Against Ultimate Purchasers.....	II-29
Suits Against Intermediaries.....	II-30

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Suits Against Co-Manufacturers.....	II-31
The New Doctrines of Comparative Fault.....	II-32
Product Liability Law in the Workplace-Have Courts Developed or Have Statutes Required Different Legal Treatment for Work-Related and Non-Work-Related Injuries.....	II-35
Introduction.....	II-35
Status as an Employee.....	II-36
Concept of Involuntary Use of Product.....	II-39
The Presence of the Employer.....	II-41
Conclusion.....	II-43
A REVIEW OF PRODUCT LIABILITY DATA-AVAILABLE FROM THE LEGAL SYSTEM.....	II-43
A SURVEY OF SECONDARY SOURCES.....	II-43
Introduction.....	II-43
Sources of Data and Analysis.....	II-44
Annual Report of the Director of the Administrative Office of the United States Courts.....	II-44
Judicial Department of Connecticut.....	II-45
RELATED SURVEYS CONDUCTED BY OTHER ORGANIZATIONS.....	II-46
Survey of Product Liability Cases in the Greater Kansas City Area Conducted by the Kansas Trial Lawyers Association.....	II-46
Illinois Jury Verdict Report-Cook County Survey, 1970-1975.....	II-46
AN INDEPENDENT SURVEY OF PRODUCT LIABILITY APPELLATE CASES IN SELECTED STATES.....	II-47
Identification of Sample States.....	II-47
What the Survey Showed.....	II-49
Findings - The Sample States as a Group.....	II-51
Findings - The Individual Sample States.....	II-56
NOTES TO CHAPTER II.....	II-58

TABLE OF CONTENTS (CONTINUED)

Page

CHAPTER III-THE IMPACT OF PRODUCT LIABILITY ON SELECTED INDUSTRIES

INTRODUCTION.....	III- 1
SUMMARY OF FINDINGS OF THE INDUSTRY STUDY'S INDUSTRY, ASSOCIATION AND OTHER SURVEYS.....	III- 2
LIMITATIONS OF THE DATA.....	III- 4
THE INDUSTRY STUDY'S SURVEY.....	III- 6
METHODOLOGY.....	III- 6
How the Firms Were Selected and Questioned.....	III- 6
Characteristics of Responding Firms.....	III- 8
RESULTS.....	III- 9
Insurance Coverage.....	III- 9
Cost of Insurance.....	III-10
Trends in Deductibles and Limits of Liability.....	III-12
Product Liability Claims Experience.....	III-13
Damages Paid.....	III-14
Product Safety and Product Liability Prevention Programs.....	III-15
INDUSTRY ASSOCIATION AND OTHER PRIVATE SURVEYS.....	III-15
ORGANIZATION OF THE SURVEYS.....	III-15
CHARACTERISTICS OF RESPONDENTS.....	III-16
RESULTS.....	III-17
Insurance Coverage and Availability.....	III-17
Cost of Insurance and Claims in the Selected Industries.....	III-17
Products With Workplace Impact.....	III-18
Products With Consumer Impact.....	III-33
WHAT PRIOR GOVERNMENT COLLECTED DATA SHOW.....	III-44
INTRODUCTION.....	III-44
WORKPLACE INJURIES.....	III-45
CONSUMER PRODUCT INJURIES.....	III-47
NOTES TO CHAPTER III.....	III-49

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
CHAPTER IV-PRODUCT LIABILITY PREVENTION TECHNIQUES	
INTRODUCTION.....	IV- 1
ELEMENTS OF A PRODUCT LIABILITY PREVENTION PROGRAM (PLPP).....	IV- 2
THE IMPLEMENTATION OF PRODUCT LIABILITY TECHNIQUES BY MANUFACTURERS.....	IV- 3
INTRODUCTION.....	IV- 3
RESULTS OF INDUSTRY STUDY'S TELEPHONE SURVEY.....	IV- 4
QUALITY CONTROL.....	IV- 6
LABELING AND PRODUCT WARNINGS.....	IV- 7
PRODUCT REDESIGN AND REMOVAL OF PRODUCTS FROM THE MARKET.....	IV- 8
RECALL OF PRODUCTS.....	IV- 9
IMPLEMENTATION OF PRODUCT LIABILITY PREVENTION PROGRAMS BY INSURERS.....	IV-10
THE POTENTIAL USE OF PRODUCT LIABILITY PREVENTION PROGRAMS IN THE FUTURE.....	IV-11
GOVERNMENT AND PRODUCT LIABILITY PREVENTION.....	IV-13
PRODUCT STANDARDS.....	IV-13

CHAPTER V-PRODUCT LIABILITY INSURANCE

INTRODUCTION.....	V- 1
SCOPE AND PURPOSE OF ANALYSIS.....	V- 1
ORGANIZATION OF THE CHAPTER.....	V- 3
THE PRODUCT LIABILITY INSURANCE POLICY.....	V- 5
INTRODUCTION.....	V- 5
TYPES OF POLICIES.....	V- 5
LIMITS OF COVERAGE.....	V- 6
DEDUCTIBLES.....	V- 6
OCCURRENCE VERSUS CLAIMS-MADE POLICIES.....	V- 6
THE UNDERWRITING AND PRICING PROCESS.....	V- 9
INTRODUCTION.....	V- 9
ISO RATE INCREASES.....	V-13

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
ISO STATISTICAL COMPILATION ACTIVITIES.....	V-14
THE RISE IN PRODUCT LIABILITY PREMIUMS.....	V-17
INTRODUCTION.....	V-17
A COMPARISON BETWEEN SMALL AND LARGE BUSINESSES.....	V-19
ALLOCATION OF THE PRODUCT LIABILITY PREMIUM DOLLAR.....	V-23
PRODUCT LIABILITY UNDERWRITING AND CLAIMS EXPERIENCE.....	V-25
INTRODUCTION.....	V-25
UNDERWRITING EXPERIENCE DATA.....	V-26
CLAIMS EXPERIENCE.....	V-29
Introduction.....	V-29
The Preliminary Report on the ISO Closed Claim Survey.....	V-29
Trending.....	V-29
Representativeness of the ISO Sample.....	V-30
CONCLUSION.....	V-33
THE FINANCIAL SITUATION IN THE PROPERTY CASUALTY INSURANCE INDUSTRY.....	V-33
INTRODUCTION.....	V-33
RESERVING PRACTICES.....	V-34
UNRESOLVED ISSUES IN RESERVING PRACTICES.....	V-36
OVERALL PROPERTY-CASUALTY EXPERIENCE.....	V-36
MISCELLANEOUS LIABILITY EXPERIENCE.....	V-39
THE IMPLICATIONS OF THE FINANCIAL TRENDS FOR PRODUCT LIABILITY INSURANCE COSTS AND AVAILABILITY.....	V-40
REINSURANCE AND SURPLUS LINES INSURANCE.....	V-41
INTRODUCTION.....	V-41
CHARACTERISITCS OF SURPLUS LINES INSURANCE AND COVERAGE TRENDS.....	V-42
REGULATION OF SURPLUS COMPANIES.....	V-43
REINSURANCE.....	V-43
Characteristics of Reinsurance and Coverage Trends...	V-43
Product Liability Reinsurance Premiums.....	V-45
Regulation of Reinsurance.....	V-45
Impact of Reinsurance and Surplus Line Trends on Product Liability Insurance.....	V-46
CONCLUSIONS.....	V-47

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Better Data Should Be Collected For All Product Liability Insurance Premiums, Losses and Claims.....	V-48
Product Liability Insurance Rates and Premiums Should Be More Closely Related to Statistical Assessments of Product Risk.....	V-48
Product Liability Insurance Rates and Premiums Should Be Monitored to Ensure That They Are Fair, Nondiscriminatory and Reasonably Related to Product Risk.....	V-49
There is a Need to Promote Greater Financial Disclosure and Accountability in Product Liability Insurance.....	V-49
Further Studies Should Be Undertaken.....	V-50
NOTES TO CHAPTER V.....	V-51

CHAPTER VI-MAJOR IMPACTS OF PRODUCT LIABILITY

INTRODUCTION.....	VI- 1
DISCUSSION OF THE MAJOR IMPACTS OF PRODUCT LIABILITY.....	VI- 2
AVAILABILITY OF PRODUCT LIABILITY INSURANCE.....	VI- 2
Introduction.....	VI- 2
Total Unavailability: Analysis.....	VI- 3
Insurance Study.....	VI- 3
Industry Study.....	VI- 4
Industry Association Surveys.....	VI- 5
State Insurance Commissioners.....	VI- 6
Correspondence Received by the Task Force.....	VI- 7
Product Liability Advisory Committee to the Under Secretary of Commerce.....	VI- 7
Partial Unavailability.....	VI- 7
Definition.....	VI- 7
Policy Limitations.....	VI- 8
Coverage Restrictions.....	VI- 9
Deductibles.....	VI-10
AFFORDABILITY OF PRODUCT LIABILITY INSURANCE.....	VI-11

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Introduction.....	VI-11
Product Liability Insurance Rates.....	VI-13
Product Liability Premiums.....	VI-17
Introduction.....	VI-17
Industry Study.....	VI-17
Trade Associations.....	VI-20
Correspondence Received by the Task Force.....	VI-21
The Product Liability Advisory Committee to the Under Secretary of Commerce.....	VI-23
Impact of Product Liability Insurance Premiums Upon Small Firms.....	VI-24
Impacts of Product Liability Upon the Cost of Products.....	VI-27
PRODUCT INTRODUCTION AND DISCONTINUATION.....	VI-28
Introduction.....	VI-28
Analysis.....	VI-29
Industry Study Findings.....	VI-29
Other Surveys of Product Manufacturers.....	VI-29
Net Impact Upon Society of Product Liability's Inhibiting Effect on New Product Development.....	VI-30
BUSINESS FAILURES.....	VI-32
Introduction.....	VI-32
Analysis.....	VI-32
Business Termination Because of Product Liability Premium Costs.....	VI-32
Business Termination Because of Unsatisfied Product Liability Judgments.....	VI-34
TRENDS IN THE NUMBER OF PRODUCT LIABILITY CLAIMS.....	VI-35
Introduction.....	VI-35
Analysis.....	VI-36
Industry Study.....	VI-36
Insurance Services Office.....	VI-37
Connecticut Court System.....	VI-37
Federal Court System.....	VI-37
Legal Study's Survey of Appellate Cases.....	VI-38
COMPENSATION OBTAINED BY PERSONS INJURED BY PRODUCTS....	VI-38

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Introduction.....	VI-38
Analysis.....	VI-39
THE RELATIONSHIP BETWEEN PRODUCT LIABILITY CLAIMS AND PRODUCT ACCIDENTS.....	VI-39
Introduction.....	VI-39
Analysis.....	VI-40
Workplace Product-Related Injuries.....	VI-40
Consumer Product-Related Injuries.....	VI-42
WORKER COMPENSATION SYSTEMS.....	VI-43
Introduction.....	VI-43
Analysis.....	VI-44
Employee Product Liability Litigation.....	VI-44
Subrogation.....	VI-46
PRODUCT LIABILITY LOSS PREVENTION.....	VI-47
Introduction.....	VI-47
Analysis.....	VI-49
Product Manufacturers' Loss Prevention Programs...	VI-49
SUMMARY OF CONCLUSIONS.....	VI-52
NOTES TO CHAPTER VI.....	VI-57

CHAPTER VII-REMEDIAL APPROACHES IN THE FIELD OF PRODUCT LIABILITY

PART I-INTRODUCTION.....	VII-1
THE SOURCE AND SCOPE OF REMEDY ANALYSIS.....	VII-1
BASIC CONSIDERATIONS IN EVALUATING REMEDIES.....	VII-2
ORGANIZATION OF THE DISCUSSION OF REMEDIES.....	VII-9
PART II-PROPOSED MODIFICATIONS OF SOME BASIC PRODUCT LIABILITY LAW RULES.....	VII-14
INTRODUCTION.....	VII-14
THE BASIC STANDARD OF RESPONSIBILITY IN PRODUCT LIABILITY CASES.....	VII-15
Introduction to the Problem.....	VII-15
Proposed Solutions to the Problem.....	VII-17
Summary and Conclusions.....	VII-18
MODIFICATION OF RULES RELATING TO THE AGE OF PRODUCTS...	VII-20

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Introduction to the Problem.....	VII-20
Proposed Solutions to the Problem.....	VII-21
Statutes of Limitations or Repose.....	VII-21
A Useful Life Duty Limitation.....	VII-26
Summary and Conclusions.....	VII-28
A DUTY LIMITATION FOR UNAVOIDABLY UNSAFE PRODUCTS.....	VII-29
Introduction to the Problem.....	VII-29
Proposed Solutions to the Problem.....	VII-31
Summary and Conclusions.....	VII-31
THE DEVELOPMENT OF PREDICTABLE LEGAL STANDARDS FOR	
PRODUCT LIABILITY CASES.....	VII-33
Introduction to the General Problem.....	VII-33
Proposed Solutions to the Problem.....	VII-33
State-of-the-Art Defense.....	VII-33
Introduction to the Problem.....	VII-33
Proposed Solutions to the Problem.....	VII-35
Summary and Conclusions.....	VII-36
Compliance with Legislative or Administrative	
Standards Defense.....	VII-37
In General.....	VII-37
Introduction to the Problem.....	VII-37
Proposed Solutions to the Problem.....	VII-38
Summary and Conclusions.....	VII-40
At the Federal Level.....	VII-40
Introduction to the Problem.....	VII-40
Proposed Solutions to the Problem.....	VII-41
Summary and Conclusions.....	VII-42
Regulation of Expert Testimony.....	VII-42
Introduction to the Problem.....	VII-42
Proposed Solutions to the Problem.....	VII-43
Court-Appointed Experts.....	VII-43
A Test for the Qualifications of Experts...	VII-44
Summary and Conclusions.....	VII-45
MODIFICATIONS OF RULES RELATING TO CONDUCT ON THE PART	
OF PRODUCT USERS.....	VII-46
Introduction to the General Problem.....	VII-46

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
The Problem of Product Misuse.....	VII-47
Introduction to the Problem.....	VII-47
Proposed Solutions to the Problem.....	VII-47
Standardizing Foreseeable Misuses for the	
Purposes of Tort Law.....	VII-48
Plaintiff's Misuse of Products and Comparative	
Fault Principles.....	VII-49
Alteration or Misuse of a Product by a Third	
Party -- Shifting Responsibility.....	VII-49
The Problem of Plaintiff's Contributory Fault or	
Assumption of Risk and Proposed Solutions.....	VII-51
Modification of Rules Relating to Conduct on the	
Part of Product Users -- Summary and Conclusions...	VII-54
PART III-PROPOSED MODIFICATIONS OF SOME BASIC PRODUCT	
LIABILITY LAW RULES THAT RELATE TO DAMAGES.....	VII-56
INTRODUCTION TO THE GENERAL PROBLEM.....	VII-56
ATTORNEYS' FEES.....	VII-56
Introduction to the Problem.....	VII-56
Proposed Solutions to the Problem.....	VII-58
The Contingent Fee -- Elimination or	
Modification?.....	VII-58
Will Elimination or Modification of the	
Contingent Fee Lower Product Liability	
Rates?.....	VII-58
Some of the Major Policy Considerations	
Relating to the Elimination or Reduction of	
the Contingent Fee.....	VII-59
Eliminate Damages for Pain and Suffering and	
Allow a Court to Award Plaintiff His Attorney's	
Fee.....	VII-61
Impose a Penalty for Filing Suits Without	
Reasonable Cause.....	VII-62
Summary and Conclusions.....	VII-63
REGULATION OF DAMAGE AWARDS FOR PAIN AND SUFFERING.....	VII-64
Introduction to the Problem.....	VII-64
Proposed Solutions to the Problem.....	VII-67

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Abolish Awards for Pain and Suffering.....	VII-67
Limit Awards for Pain and Suffering to a Specific Multiple of Special Damages.....	VII-68
Limit Awards for Pain and Suffering to a Fixed Ceiling.....	VII-68
Limit Awards for Pain and Suffering to a Fixed Schedule Based on the Type of Injury Plaintiff Endured.....	VII-69
Summary and Conclusions.....	VII-69
MODIFICATION OF THE COLLATERAL SOURCE RULE.....	VII-70
Introduction to the Problem.....	VII-70
Proposed Solutions to the Problem.....	VII-73
Abolish the Collateral Source Rule.....	VII-73
Modify the Collateral Source Rule.....	VII-73
Authorize the Introduction of Collateral Sources in Evidence.....	VII-74
Summary and Conclusions.....	VII-75
RESTRICTIONS ON AWARDING PUNITIVE DAMAGES.....	VII-75
Introduction to the Problem.....	VII-75
Proposed Solutions to the Problem.....	VII-78
A Method to Reduce the Impact of the Multiple Punitive Damage Award.....	VII-78
Should Punitive Damages be Paid to a Source Other than Plaintiff?.....	VII-79
Summary and Conclusions.....	VII-80
REPLACING LUMP SUM DAMAGES WITH A PERIODIC PAYMENT SYSTEM.....	VII-80
Introduction to the Problem.....	VII-80
Proposed Solutions to the Problem.....	VII-81
Replace Lump Sum Payment Awards with a Periodic Payment System.....	VII-81
How a Periodic Payment System Might Function.....	VII-82
Summary and Conclusions.....	VII-84
FOOTNOTES.....	VII-84

TABLE OF CONTENTS (CONTINUED)

Page

PART IV-PROPOSED MODIFICATIONS OF PRODUCT LIABILITY RULES RELATING TO A DEFENDANT'S RIGHT AGAINST THIRD PARTIES -- THE PROBLEM OF THE WORKPLACE INJURY

INTRODUCTION TO THE GENERAL PROBLEM.....	VII-85
PROPOSED SOLUTIONS TO THE PROBLEM.....	VII-87
Contribution and Indemnity Claims -- In General.....	VII-87
Contribution and Indemnity as Applied to Injuries in the Workplace.....	VII-88
Allow Full Contribution by a Manufacturer Based on the Comparative Responsibility of Manufacturers and Employers in Regard to a Product Work-Related Accident.....	VII-89
Allow Manufacturers Limited Contribution Claims Up to the Amount of the Employers' Worker Compensation Payment.....	VII-92
If Legislation is Enacted Allowing Manufacturers Contribution Claims, the Matter of Employer Coverages for Such Claims Should be Considered..	VII-92
Worker Compensation Insurance -- Experience Rated.....	VII-93
A Federal Law Allowing Contribution by a Manufacturer Against a Negligent Employer.....	VII-93
Summary and Conclusions.....	VII-95
Prohibition or Modification of Subrogation by Worker Compensation Carriers.....	VII-95
Introduction to the Problem.....	VII-95
Proposed Solutions to the Problem.....	VII-97
Abolish the Right of Subrogation.....	VII-97
Modify the Right of subrogation.....	VII-98
Summary and Conclusions.....	VII-99
Validation of Hold Harmless Agreements.....	VII-99
Introduction to the Problem.....	VII-99
Proposed Solutions to the Problem.....	VII-101
Summary and Conclusions.....	VII-102

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Worker Compensation as a Sole Source of Recovery --	
Abolishing the Workers' Third-Party Claim.....	VII-103
Introduction to the Problem.....	VII-103
Proposed Solutions to the Problem.....	VII-108
Summary and Conclusions.....	VII-112
FOOTNOTES.....	VII-113
 PART V-PROPOSED MODIFICATIONS OF PRODUCT LIABILITY	
INSURANCE MECHANISMS	
INTRODUCTION TO THE GENERAL PROBLEM.....	VII-114
RESIDUAL INSURANCE MARKET MECHANISMS.....	VII-115
Residual Insurance Market Mechanisms -- at the State	
or Federal Level.....	VII-115
Residual Insurance Market Mechanisms -- Under What	
Circumstances Should They Be Subsidized?.....	VII-118
Introduction to the Problem.....	VII-118
Justification for a Subsidy.....	VII-119
Analogous Areas Where Federal Subsidies Have Been	
Used in the Past.....	VII-123
Summary and Conclusions.....	VII-125
Assigned Risk Plans.....	VII-127
Introduction to the Problem.....	VII-127
Application of Assigned Risk Plans in the Area	
of Product Liability -- Some Problems.....	VII-128
Eligibility Requirements.....	VII-128
Allocation of Assignment.....	VII-129
Determining Individual Premium Rates.....	VII-129
Inadequate Coverage Problems.....	VII-130
Summary and Conclusions.....	VII-130
Pooling Mechanisms.....	VII-130
Introduction to the Problem.....	VII-130
Proposed Solutions to the Problem.....	VII-132
Voluntary Pooling Mechanisms.....	VII-132
Mandatory Pooling Mechanisms -- Joint	
Underwriting Associations.....	VII-135
Introduction.....	VII-135

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Application of Mandatory Pooling Mechanisms in the Area of Product Liability -- Some Problems.....	VII-136
Disruption Factors.....	VII-136
How Long Should the Pooling Mechanism Be in Operation?.....	VII-137
Should the Pooling Mechanism be the Exclusive Source of Product Liability Insurance?.....	VII-138
Which Insurers Should be Required to be Members of the Pooling Mechanisms?.....	VII-139
How Should the Assessment Basis for the Pooling Mechanism be Determined?.....	VII-140
How Should Losses be Recouped?.....	VII-141
Other Major Issues Concerning Mandatory Product Liability Insurance Pooling Mechanisms.....	VII-142
Summary and Conclusions.....	VII-142
Federal Insurance and Reinsurance.....	VII-143
Introduction the the Problem.....	VII-143
Direct Federal Insurance.....	VII-143
Federal Reinsurance.....	VII-145
Reinsurance -- What Is It?.....	VII-146
Can Federal Reinsurance Ease Product Liability Rates for Individual Insureds?.....	VII-147
Is Federal Reinsurance a Long- or a Short- Range Remedy?.....	VII-148
Who Should Be Eligible to Participate in the Reinsurance Mechanism.....	VII-150
Summary and Conclusions.....	VII-152
Captive Insurance Companies.....	VII-154
Introduction to the Problem.....	VII-154
Analysis of the Potential Advantages of Captive Insurance Companies.....	VII-155
Benefits of Captives -- A Summary.....	VII-160
Proposed Solutions to the Problem.....	VII-160

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Modifying Insurance Regulations for Captives..	VII-161
Incentives Based on Tax Savings.....	VII-164
Overall Summary and Conclusions.....	VII-167
Structured Self-Insurance Programs.....	VII-167
Introduction to the Problem.....	VII-167
Proposed Solutions to the Problem.....	VII-169
Summary and Conclusions.....	VII-172
MANDATORY PRODUCT LIABILITY PREVENTION PROGRAMS.....	VII-172
Introduction to the Problem.....	VII-172
Proposed Solutions to the Problem.....	VII-175
Require Manufacturers to use Reasonable Product Liability Prevention Techniques as a Quid Pro Quo for Participation in Government Reinsurance or Pooling Programs.....	VII-175
Require Insurers to Build into Their Product Liability Rates an appropriate Discount When Insureds Use Proper Product Liability Prevention Techniques.....	VII-177
Require Insurers to Assist in Loss Prevention Activity on Behalf of Their Insureds.....	VII-180
Increase Government Action to Assist Businesses in the Area of Product Liability Prevention.....	VII-183
Summary and Conclusions.....	VII-186
REMEDIES DESIGNED TO ELIMINATE UNSATISFIED JUDGMENTS...	VII-187
Introduction to the General Problem.....	VII-187
Proposed Solutions to the Problem.....	VII-189
Do Data Show that Mandatory Product Liability Insurance Laws or Unsatisfied Judgment Funds are Needed?.....	VII-189
Mandatory Product Liability Insurance Laws.....	VII-191
Introduction to the Problem.....	VII-191
Which Manufacturers Would Be Covered by the Law?.....	VII-191
How Much Coverage Would be Necessary?.....	VII-193
Relationship With Residual Insurance Mechanisms.....	VII-195

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Relationship With No-Fault Compensation Systems.....	VII-195
Unsatisfied Judgment Funds.....	VII-195
Introduction to the Problem.....	VII-195
The Source of Revenue for an Unsatisfied Judgment Fund.....	VII-196
Procedure for Recovery Against the Fund.....	VII-197
Limitation on Amounts Paid Out of the Fund....	VII-198
Summary and Conclusions -- Comparison of Mandatory Product Liability Insurance and Unsatisfied Judgment Funds.....	VII-199
FOOTNOTES.....	VII-200
 PART VI-ALTERNATIVE METHODS FOR COMPENSATING CONSUMER PRODUCT INJURIES: HEREIN NO-FAULT COMPENSATION SYSTEMS AND ARBITRATION	
INTRODUCTION TO THE GENERAL PROBLEM.....	VII-202
NO-FAULT COMPENSATION SYSTEMS.....	VII-202
Introduction the the Problem.....	VII-202
No-Fault Systems -- A Description.....	VII-203
The Government's Role in a Product Liability No-Fault Compensation System.....	VII-209
Alleged Benefits of a No-Fault Product Liability System.....	VII-212
Some Major Problems with the Use of First-Party No-Fault Systems in Product Liability Cases.....	VII-217
Summary and Conclusions.....	VII-228
ARBITRATION.....	VII-229
Introduction to the Problem.....	VII-229
Proposed Solutions to the Problem.....	VII-230
The Format of Arbitration in Product Liability Cases.....	VII-230
Constitutional Problems with Compulsory Non-Binding Arbitration.....	VII-232
Structure of the Arbitration Panel.....	VII-234

TABLE OF CONTENTS (CONTINUED)

	<u>Page</u>
Alleged Benefits of a Product Liability	
Arbitration Process.....	VII-234
Summary and Conclusions.....	VII-238
FOOTNOTES.....	VII-240
PART VII-SYNTHESIS OF CHAPTER AND CONCLUSIONS.....	VII-242

List of Tables

<u>No.</u>		<u>Page</u>
II-1	Federal District Courts Product Liability Cases: Total Breakdown.....	II-74
II-2	Federal District Courts Product Liability Cases--Breakdown by Percentage.....	II-74
II-3	Federal District Courts Product Liability Cases--Comparison to Total Civil Cases.....	II-75
II-4	Federal District Courts Product Liability Cases--Personal Injury Torts.....	II-75
II-5	Connecticut Court of Common Pleas--Total Product Liability Breakdown.....	II-76
II-6	Connecticut Superior Court--Total Product Liability Breakdown.....	II-77
II-7	Key Statistical Breakdown--Total Cases For Survey Undertaken in Legal Study.....	II-78
II-8	Key Statistical Breakdown--Trend: Product Class.....	II-78
II-9	Key Statistical Breakdown--Time Interval Between Year of Manufacture and Year of Injury By Product Class.....	II-79
II-10	Key Statistical Breakdown: Forum.....	II-79
II-11	Key Statistical Breakdown--Trend: Total Damages Awarded.....	II-80
II-12	Key Statistical Breakdown--State or Federal Court Forum.....	II-80

<u>No.</u>		<u>Page</u>
II-13	Increase in Number of Reported Cases: 1965-70 v. 1971-76.....	II-81
II-14	Key Statistical Breakdown--Work- and Non-Work- Related Cases.....	II-81
II-15	Key Statistical Breakdown--Disposition.....	II-82
II-16	Key Statistical Breakdown--Damages.....	II-82
III-1	Number of Firms in the Sample, Number of Responses and Response Rates, By Product and Sales Categories.....	III-50
III-2	Average Total Gross Sales Per Firm, By Product and Sales Category--1975 (thousands of dollars).....	III-51
III-3	Extent of Current Product Liability Coverage, By Size of Category.....	III-52
III-4	Reasons For Not Carrying Product Liability Insurance--Percent of Total Responses By Size Category.....	III-53
III-5	Comprehensive General Liability Coverage-- Average Cost Per \$1,000 Sales--1971 to 1976, By Size Category.....	III-54
III-6	Estimated Average Product Liability Insurance Cost Per \$1,000 Sales Under Comprehensive General Liability Plans By Size Category-1971-76.....	III-55
III-7	Estimated Average Primary Product Liability Insurance Costs Per \$1,000 In Designated Product Category Sales--1971-76.....	III-56
III-8	Umbrella Coverage Average Costs Per \$1,000, By Size Category--1971-76.....	III-57

<u>No.</u>		<u>Page</u>
III-9	Average Deductible or Self-Insurance Retention Levels, By Size Category--1971-76 (thousands of dollars).....	III-58
III-10	Number and Percent of Firms Reporting Any Product Liability Claims, By Size Category--1971-76.....	III-59
III-11	Average Number of Pending Claims, By Product Category--1971-76.....	III-60
III-12	Average Number of New Claims per Firm By Size Category--1971-76.....	III-61
III-13	Average Number of new Claims per Firm By Product Category--1971-76.....	III-62
III-14	Total Damages Sought in Pending Claims, Average Amount Per Firm, By Size Category--1971-76 (thousands of dollars).....	III-63
III-15	Total Damages Sought in New Claims, Average Amount Per Firm, By Size Category--1971-76 (thousands of dollars).....	III-64
III-16	Average Annual Settlement Amounts Per Firm By Size Category--1971-76 (thousands of dollars)...	III-65
III-17	Summary of Trade Associations and Other Organizations Participating in the Product Liability Study.....	III-66
III-18	Size Characteristics of Respondents to the Trade Association Surveys.....	III-67
III-19	Reasons Given for Not Carrying Product Liability Insurance in Trade Association Surveys.....	III-68
III-20	Product Liability Insurance--Average Annual Cost Per Thousand Dollars of Sales--(ATMA).....	III-69

<u>No.</u>		<u>Page</u>
III-21	Claims Experience of Reporting Firms--(ATMA)....	III-70
III-22	Product Liability Insurance--Average Annual Cost Per Thousand Dollars of Sales--(IHEA).....	III-71
III-23	Claims Experience of Reporting Firms--(IHEA)....	III-72
III-24	Claims Experience During the Period From 1970 to 1975--(MAPI).....	III-73
III-25	Claims Experience of Reporting Firms--(RPI).....	III-74
III-26	Insurance Cost Per Firm--(WMMA).....	III-74
III-27	Claims Experience of Reporting Firms--(WMMA)....	III-75
III-28	Primary Product Liability Insurance--Average and Median Annual Costs Per Thousand Dollars of Sales--(SPI).....	III-76
III-29	Claims Experience For All Respondents--(SPI)....	III-77
III-30	Primary Product Liability Insurance--Average Annual Cost Per Thousand Dollars of Sales.--(CMF).....	III-78
III-31	Claims Experience of Reporting Firms--(CMF).....	III-79
III-32	Average Insurance Costs Per Firm--(ADCI).....	III-80
III-33	Product Liability Insurance-Average Annual Cost Per Thousand Dollars of Sales-(RVIA).....	III-81
III-34	Claims Experience Since 1970, By Size of Firm.--(ATMI).....	III-82
III-35	Product Liability Insurance-Average Annual Cost Per Thousand Dollars of Sales-(WWEA).....	III-83
III-36	Claims Experience of Reporting Firms-(WWEA)....	III-84

<u>No.</u>		<u>Page</u>
IV-1	Reported Impact of Selected Product Safety Programs.....	IV-18
IV-2	Special Product Liability Prevention Programs, By Size of Sales Category.....	IV-19
IV-3	Special New Programs Considered in the Last Year to Reduce Claims, By Size of Sales Category.....	IV-20
V-1	Number of Companies With Per Occurrence Deductibles.....	V-54
V-2	Average Deductible or Self-Insurance Retention Levels By Sales Category 1971-76.....	V-55
V-3	Product Liability Rating Methods.....	V-56
V-4	Basic Monoline Rate Increases for Product Liability Insurance December 1976 and Over August 1975.....	V-57
V-5	Increased Limits Factors For Bodily Injury and Property Damage.....	V-59
V-6	Product Liability Classes With Monoline Premiums of \$10 or More Per \$1,000 of Sales.....	V-60
V-7	Effect of ISO Revisions on Product Liability Premium Rates.....	V-61
V-8	Rate Increases in (a) Rated Products.....	V-62
V-9	Estimated Average Product Liability Cost Per \$1,000 in Total Sales Under Comprehensive General Liability Plans 1971-76.....	V-63
V-10	Comprehensive General Liability Coverage Average Cost Per \$1,000 Sales By Product and Size Categories 1976.....	V-64

<u>No.</u>		<u>Page</u>
V-11	Comparative Analysis of Leading Indicators for Small, Medium and Large Firms.....	V-65
V-12	Estimated Allocation of Product Liability Premium Dollar.....	V-66
V-13	Estimated Allocation of Total 1976 Product Liability Premiums.....	V-67
V-14	Product Liability Insurance Underwriting Experience, Bodily Injury and Property Damage Combined 1969-74.....	V-68
V-15	Product Liability Insurance Incurred Losses, Bodily Injury and Property Damage Combined 1969-74.....	V-69
V-16	Product Liability Insurance Incurred Losses, Bodily Injury 1969-74.....	V-70
V-17	Product Liability Insurance Incurred Losses, Property Damage 1969-74.....	V-71
V-18	Products Generating Most Payment Dollars, Bodily Injury (Untrended and Trended).....	V-72
V-19	Products Generating Most Payment Dollars, Property Damage (Untrended and Trended).....	V-73
V-20	Product Liability Claims, Time Interval From Date of Occurrence to Date of First Report, Bodily Injury and Property Damage (Untrended)...	V-74
V-21	Product Liability Claims, Time Interval From Date of Occurrence to Date of Closing, Bodily Injury and Property Damage (Untrended).....	V-75
V-22	Distribution of Product Liability Claims By Injured Party's Status in Occurrence (Untrended and Trended).....	V-76

<u>No.</u>		<u>Page</u>
V-23	Product Liability Closed Claim Costs By Stage Of Legal System (Untrended).....	V-77
V-24	Distribution of Paid Bodily Injury Claims and Losses, 1976 Calendar Year (Liberty Mutual).....	V-78
V-25	Annually Adjusted Incurred Loss Estimates, 10 Leading Writers of Miscellaneous Liability Insurance 1972-75.....	V-79
V-26	Property Casualty Insurance Industry: Estimates of Financial Operating Results 1971-76.....	V-80
V-27	Total Property-Casualty and Miscellaneous Liability Premiums 1972-76.....	V-81
V-28	Property-Casualty and Miscellaneous Liability Combined Loss Ratios After Dividends 1972-76....	V-81
V-29	Loss Ratios and Aggregate Premiums, 10 Leading Writers of Miscellaneous Liability Insurance and Total Industry 1972-76.....	V-82
V-30	Range in Loss Ratios for 10 Leading Writers of Miscellaneous Liability Insurance 1972-76.....	V-82
V-31	Surplus Line Premiums Reported By Major State Insurance Departments 1972-75.....	V-83
V-32	Total American Reinsurance 1960-75.....	V-84

EXECUTIVE SUMMARY FOR THE FINAL REPORT OF THE FEDERAL INTERAGENCY TASK FORCE ON PRODUCT LIABILITY

THE NATURE OF THIS REPORT

This report is the culmination of over one year of intensive study about the topic of product liability. It describes the causes, nature and scope of problems that have arisen in that area. Also, it analyzes potential cures or remedies that have been proposed as solutions for those problems.

The topic of product liability deals with the full scope of how our legal and private insurance systems compensate persons who are injured by products. It defines the responsibility of retailers, distributors and manufacturers for products that cause injury. In 1975, an apparent problem arose in the field of product liability. A number of manufacturers and business periodicals alleged that product liability insurance had become unavailable or unaffordable. After some initial investigation, a Federal Interagency Task Force was established by the White House to study the product liability problem and report back to it on or before December 15, 1976. A report based on that document, entitled "The Federal Interagency Task Force on Product Liability Briefing Report" was released to the public on January 4, 1977. The Briefing Report was based on preliminary drafts of three independent contractor studies commissioned by the Task Force as well as pre-December 1, 1976 data and information. The independent contractor reports were in the legal, insurance and industry areas.

This report is based on the final versions of the contractor reports and a wide array of resources set forth at pp. I-7 - 17.

MAJOR IMPACTS OF THE PRODUCT LIABILITY PROBLEM

Introduction

Major impacts of the product liability problem are discussed in Chapter VI of this report. A very highly condensed summary of those findings is set forth here. The full discussion in Chapter VI shows that very little solid information is available with

respect to some of these topics, e.g., the number of product liability claims filed annually. Nevertheless, the report discusses those subjects in order to abate the growing amount of misinformation that has been set forth about product liability. Chapter III of this report sets forth detailed findings based on the industry contractor's independent survey of 337 corporations and 20 trade associations. These findings are summarized at pp. III-2 - 4. of this report and analyzed in that chapter.

In Chapter II of this report we set forth our legal contractor's review of product liability data that have been derived directly from the legal system. The first section describes the very limited data that could be found about product liability claims and settlements from legal sources. See pp. II-43 - 47. Only the State of Connecticut and the Federal courts (both since 1974) collect these data.

The second section sets forth the results of a product liability survey undertaken by the legal contractor. The contractor surveyed 655 appellate cases from eight representative states. See pp. II-47 - 57. The data from Chapter II have been used, where possible, in describing major impacts.

SUMMARY OF MAJOR IMPACTS OF THE PRODUCT LIABILITY PROBLEM

Availability of Product Liability Insurance

Total Unavailability

There is no widespread problem of product liability insurance being unavailable. A few companies in the Task Force's target industries and other high-risk product lines are having difficulty obtaining product liability insurance. For some others, product liability rates would appear to be unaffordable--it has been persuasively argued to the Task Force that this is a practical equivalent of unavailability.

Partial Unavailability

Policy limitations.--Policy limitations that insurance companies have been willing to offer for products coverage do not appear to have changed significantly since 1971. Thus, insurance

companies are not forcing insureds to retain more risks by reducing the amount of coverage that they are willing to make available. On the other hand, some underwriters are reluctant to increase the limits of liability for existing coverage. Thus, some manufacturers whose products' risk exposure appears to be increasing may be unable to protect themselves against that increase by raising the limits of their products coverage.

Coverage restrictions.--Task Force information sources were not wholly in accord on the question of whether coverage restrictions were increasing. The Industry Study found restrictions on products coverage to be more prevalent than the Insurance Study, which concluded that coverage exclusions are rarely imposed by insurance companies. Major product liability insurers appear to be willing to write coverage for most product lines. Smaller insurance companies may exclude some very high-risk products from their General Comprehensive Liability coverage.

Deductibles.--Deductibles appear to be increasingly prevalent among our target industry groups. Furthermore, the levels of deductibles appear to have increased significantly between 1975 and 1976 for both large- and medium-sized firms in our target industry groups. This increase in the frequency and level of deductibles may be a matter of choice on the part of insureds rather than a requirement of the insurance companies.

Affordability of Product Liability Insurance

As it affects insureds.--There has been a substantial increase in the cost of product liability insurance since 1974 in all of the Task Force's target industries. The increase in premiums appears to have been greater for small as compared to large businesses. Also, small firms appear less able to cope with affordability problems than large firms. Certain industries appear to have been subject to very substantial increases. These include manufacturers of medical devices, pharmaceuticals, power lawnmowers, industrial chemicals and metal castings. Anecdotal data show similar impacts on manufacturers of sporting goods and ladders. In some instances manufacturers--especially of durable goods--may not be able to pass this increased cost on to their customers.

As it affects the price of products.--One cannot readily measure the exact cost of product liability insurance as part of the price of a product. The average cost of product liability insurance is less than 1 percent of sales in most of the Task Force's target industries, but it is higher for some manufacturers. The total cost of product liability insurance as it affects the price of a product may be above the 1 percent figure because distributors and retailers may also pass on the cost of their product liability insurance to purchasers. Furthermore, other product liability costs, in addition to product liability premiums, may be reflected in the price of a product.

Product Introduction and Discontinuation

Product liability problems in the pharmaceutical and other high-risk product lines may reinforce trends against new product development with the result that some socially beneficial products may never be developed or may be discontinued. This is especially true for smaller firms. On the other hand, some of the products that are not produced (or are discontinued) may be ones whose potential for causing harm outweighs their social utility. This is an area that deserves further investigation.

Business Failures

Product liability problems do not appear to have been a direct and sole cause of business failures. On the other hand, circumstantial evidence suggests that substantial product liability premium increases may be one of several factors that cause small businesses in high-risk product industries to go out of business. In the future, some small businesses may be placed in default by product liability judgments.

Trends in the Number of Product Liability Claims

No organization, public or private, currently records all product liability claims or lawsuits. The best "estimate" of the number of product liability claims filed in 1976 is between 60,000 and 70,000. Data are not available that would provide a firm indication of the trends in the number of product liability claims in the 1974-1976 period. In our target industries, the

average number of pending claims appears to have increased substantially between 1971 and 1976.

Compensation Obtained by Persons Injured by Products

A small percentage of persons injured by products file product liability claims. There is little information available regarding the compensation obtained by claimants, although, a preliminary closed claim survey suggests that a relatively high percentage receive their medical expenses, wage losses and other out-of-pocket expenses other than legal fees. A recent Insurance Services Office closed claim survey and other data sources suggest that less than 6 percent of product liability claims are litigated to a final court verdict. Of those who litigate cases, less than 50 percent recover any damages.

The Relationship Between Product Liability Claims and Product Accidents

Limited data collected by our Industry Study suggest that any increase in product liability claims in the majority of our target industries is not due to an increase in the number of product-related accidents. This finding appears to be firmer in regard to workplace products than consumer products.

Worker Compensation Systems

Some persons injured by products in the workplace are supplementing their Worker Compensation recovery by the use of product liability suits. Worker Compensation insurers and self-insuring manufacturers or distributors are able to recoup some of their injury compensation costs through subrogation in product liability claims. These claims would appear to have only a very minor impact on the Worker Compensation system. Insurers stress that workplace accidents and resultant product liability claims have been an important cause of the product liability insurance rate increases that have been generated for industrial products within our target groups.

Product Liability Loss Prevention

The tort-litigation system and increased product liability insurance costs have caused many manufacturers of high-risk products to devote more time and resources to product liability loss prevention; however, a number of such businesses have not done so. Limited data show that a much higher percentage of large, as opposed to small manufacturers, have implemented product liability loss prevention programs. Also, insurers appear to have supplied product liability advice more frequently to large insureds than to small ones. In addition, company executives interviewed by the industry contractor did not perceive a direct correlation between the implementation of product liability loss prevention programs and a reduction in insurance costs.

THE PRINCIPAL CAUSES OF THE PRODUCT LIABILITY PROBLEM AND THEIR REMEDIES

Introduction

The Task Force's Briefing Report identified three principal causes of the product liability problem--liability insurance ratemaking procedures, the tort-litigation system, and manufacturing practices--and their remedies. Little has changed in the intervening months to alter the Task Force's perspective about the principal causes. This report does not rank these causes in a hierarchical chain; data do not permit a conclusion that one cause is more important than the other. Lesser causes include inflation, consumer and worker awareness of their legal rights, increases in the number and complexity of products, and product misuse.

There is a tendency for each group that has a special interest in the product liability problem to assert that "the cause" lies in conduct unrelated to their own group.

It is the view of the Task Force that the product liability problem is based on a confluence of causes and that it will only be resolved if each cause is properly addressed.

For the convenience of the reader, we have summarized each cause and then remedies that may resolve it.

Analysis
(See pp. I-21 - 31)

Cause 1: Liability Insurance Ratemaking Procedures

In the overwhelming majority of cases, insurance company sources did not rely on data to support premium increases that occurred in the 1974-1976 period.

Nevertheless, a number of representatives from the insurance industry have stated that product liability rates were set too low in the 1971-1974 period. Insurers argue that in the early 1970's they were not aware that product liability would become a substantial problem. The Task Force's Legal Study showed that strict product liability first came into the law as an important force in 1965. By 1971 and 1972, a number of major states had adopted strict product liability theories. Nevertheless, this did not alter the product liability insurer practice of combining product liability coverages in Comprehensive General Liability packages. This factor, along with uncertainties in insurer reserving practices, makes it almost impossible to obtain an accurate profit and loss picture for product liability insurance. Thus, we have been unable to make a finding as to whether product liability premium increases were, as a whole, justified in the 1974-1975 period. Circumstantial evidence suggests that some insurers engaged in "panic pricing." It would appear that some insureds may be paying a higher premium than data would justify, and others may be paying a lower premium. A full discussion of this cause will be found at p. I-21. Chapter V describes, in detail, the pricing process, claims experience, and the financial situation in the insurance industry.

Remedies that improve ratemaking procedures

Premium, loss and claim data should be collected in a manner that is as statistically sound and reliable as possible for ratemaking and other purposes.

1. An improved data base is an essential first step in the solution of product liability problems--it will permit examination of actual trends in product liability claims and costs to insurers.
2. Product liability insurance rates and premiums should be more closely related to statistical assessments of product risks. Rates for most product liability insurance risks are based on subjective estimations of anticipated loss costs. Consequently, it is not possible to draw direct correlations between premiums and product risks. Nevertheless, it may be difficult to collect sufficient data for ratemaking purposes for some product classes. To overcome this problem, consideration should be given to expanding those product classes where experience is generated slowly.
3. Product liability insurance rates and premiums should be monitored to ensure that they are fair, non-discriminatory and reasonably related to product risk. In the area of product liability insurance, consideration should be given to targeting review of those rate increases which exceed a threshold amount. Such a procedure would focus regulatory attention on those rates and premiums which have the most significant adverse effect on business. Such monitoring, would also promote greater uniformity among rates charged to firms producing products with similar risks.

In order to achieve this goal, it is essential that state insurance regulators have access to a data base which includes nationwide experience on all product liability claims.

4. There is a need to promote greater financial disclosure and accountability in product liability insurance. It would be constructive if a system were devised whereby insurers would report all product liability experience as a separate line on their annual report filed with state insurance departments. This would permit examination of aggregate product liability experience of insurers. Also, it would appear to be both in the

insurers' and the public interest for insurers to provide information that would enable regulators and others to get a more accurate assessment of the insurers' complete financial situation regarding claims and reserves.

5. It may be necessary to conduct further studies on reserving practices, including evaluation of methods of estimating reserves, the disposition of the excess of reserves that are not ultimately paid to claimants and related claim expenditures, and the appropriateness of existing loss development and trend factors.

The basis for these conclusions and details of insurer-related remedial proposals are set forth in Chapter V of this report.

Cause 2: Manufacturing Practices

The data suggest that more manufacturers are giving greater attention to product liability loss prevention techniques. Nevertheless, some companies--especially some smaller ones--are unable to devote adequate resources to product liability loss prevention programs and do not receive assistance from their insurance companies in regard to this problem. In the long run, this leads to product liability claims, greater insurance and other costs for the manufacturer and the product user. Details with respect to this cause are set forth at pp. I-24 - 26.

Remedies that address unsafe manufacturing practices

1. Any government pooling or reinsurance mechanism which allows a subsidy to individual insureds should include a provision that will provide product users with the assurance that the program's participants utilized reasonable product liability loss prevention techniques. See p. VII-175.
2. Those charged with the responsibility of approving insurance rates should give careful consideration to developing a technique whereby insurers would build into product liability insurance rates an appropriate

discount when insureds used proper product liability prevention techniques. See p. VII-177.

3. While insurers are in an excellent position to assist individual insureds in implementing sound product liability loss prevention programs, there are serious problems with making a requirement of this type mandatory. If this approach were taken, an appropriate surcharge might be added to product liability insurance which would allow a mandate of this type to be implemented. See p. VII-180.
4. Under existing legislation, it would be possible to ask an appropriate Federal agency to coordinate product liability risk information for a variety of agencies and make it available to manufacturers that could benefit from it. See p. VII-183. It is less certain that government personnel should engage in providing direct technical assistance to manufacturers in the area of product liability loss prevention techniques. See pp. VII-185 - 186.

Cause 3: Uncertainties in the Tort-Litigation System

The tort-litigation system does not, in general, impose absolute liability on manufacturers of products. In many situations, a jury is asked to balance the economic burden on the manufacturer to produce a safe product against the probability that the product may cause injuries and the severity of those injuries. On the other hand, some appellate courts do not view product liability law as a means of apportioning responsibility between parties, but as a compensation system. Some decisions from these courts come very close to holding that the tort-litigation system should provide a recovery when persons are injured by products.

While these cases appear to be relatively few in number, insurers have regarded them as quite important in their pricing practices. If one state court reaches a decision of this type, others could follow it in the future. It is almost impossible to predict when courts will change product liability rules and broaden the exposure of insureds. The instability in product

liability law appears to have increased defense and investigation costs.

A detailed discussion of how product liability law rules vary (in five important areas) is set forth at pp. II-1 - 43.

Remedies That May Relieve Uncertainties in the Tort-Litigation System

Introduction

Individual state modifications of the tort system may not alleviate the uncertainty problem. This is because most products are distributed in a large number of jurisdictions. Thus, product liability insurance rates are made on a nationwide, not on a local basis. Where product liability insurance costs are passed on in the price of a product, consumers in some jurisdictions may pay for legal interpretations that are rendered in others. Among the primary areas of uncertainty in basic product liability law are rules relating to the responsibility of the manufacturer in designing its product and warning about hazards connected with that product. See pp. II-1 - 27.. 1-24.

We have concluded that this cause of the product liability problem can only be addressed by a careful review of product liability law as a whole. In Chapter VII, this report addresses a wide variety of these topics and suggests ways in which this cause of the product liability problem might be reduced or eliminated. Basic considerations that were utilized in evaluating the remedies are set forth at p. VII-2 et seq. Chapter VII itself is summarized at p. VII-242 et seq. of this report.

The Task Force did not decide whether uniform rules should be formulated at the Federal or state level; rather, it has left that issue for policymakers to determine in light of this report as well as other information that is available on the topic of product liability.

While uniform product liability rules should be developed, it also will be useful to engage in the further study of the utility of a no-fault compensation system. While this report does not resolve the ultimate issue of whether no-fault should or should

not be used in the area of product liability, it defines the issues that must be resolved before a decision of that kind can be made. While the Task Force has not determined whether this study should be undertaken at the Federal or state level, it suggests that duplicative study costs be avoided.

Major issues which must be resolved in the development of uniform product liability rules

1. The Basic Standard of Responsibility

The basic standard of responsibility for product liability should separately identify problems relating to defects in construction from defects in design and defects based on a failure to warn. Our discussion of the details of this issue are set forth at pp. VII-15 - 18 of this report.

2. Modification of Rules Relating to the Age of Products

There is some merit in the suggestion that the tort-litigation system should set forth a period of time where a manufacturer's duty to product users terminates. On the other hand, fixed statutes of repose can work an unfair hardship on injured parties. This report attempts to balance the interests of consumers and manufacturers in this difficult area. The details of our conclusions are set forth on pp. VII- 18 - 28.

3. A Duty Limitation for Unavoidably Unsafe Products

Some products are unavoidably unsafe in their normal use. While this report suggests that manufacturers should not be deemed liable for injuries caused by unavoidably unsafe products, shielding the manufacturer may leave a seriously injured consumer without compensation. Also, the current approach to the topic subjects manufacturers to considerable defense costs. Long-term resolutions in this topic area seem particularly suited to more major modifications in tort law. See pp. VII-29 - 32.

4. The Development of Predictable Legal Standards for Product Liability Cases

a. State-of-the-art defense

It would be inadvisable for product liability law to adopt a state-of-the-art defense based on standards customarily used in an industry. On the other hand, courts that deem the technological state-of-the-art totally irrelevant fuel the uncertainty in product liability law. This report suggests an approach that would be fair to manufacturers without permitting them to control product standards used in litigation. See pp. VII-33 - 37.

b. Compliance with legislative or administrative standards defense

There might be some incentive towards risk prevention if a manufacturer were given a tort law benefit on the basis of its compliance with appropriate legislative or administrative standards. Nevertheless, a loose application of that benefit might produce the opposite result. This report suggests a method whereby certain standards would be deemed to create a rebuttable presumption that a product conforming to it was reasonably safe in regard to that specific standard. See pp. VII-37 - 42.

Regulation of expert testimony

Courts might make wider use of court-appointed experts under a procedure similar to that outlined in Federal Rule 706. When experts are utilized, the court might hold a preliminary hearing to test the qualifications of experts under a procedure outlined in this report at pp. VII-42 -46. Arbitration may present the best method for regulating expert testimony. See pp. VII-229 -- 239.

Modification of rules relating to conduct on the part of product users

In some situations, it may be appropriate for courts to impose a duty on manufacturers to warn about potential misuses of a product. While it is just to permit manufacturers to know the exact nature and extent of this duty, there does not appear to be a readily available neutral source that could formulate that responsibility. The report shows how a comparative responsibility system might balance the interests of both consumers and manufacturers in cases of product misuse. See pp. VII-46 - 55.

Proposed modifications of some basic product liability rules that relate to damages

Modification of rules relating to damages have the potential of providing rationality and stability in the tort-litigation system. See pp. VII-56 - 84.

a. Attorneys' Fees

Defense costs, rather than the contingent fee, have directly affected the cost of product liability insurance. Remedies that foster settlement and decrease the need for litigation reduce this cost. See p. VII-62.

The contingent fee, on occasion, may tempt an attorney to bring a frivolous suit. To alleviate this problem, it may be more appropriate to penalize those specific attorneys by imposing sanctions against them, than it is to abolish the contingent fee system. See p. VII-62. The greatest potential abuse in the contingent fee system appears to arise in some high verdict cases. A sliding scale contingent fee system may correct this abuse, but it must have plasticity to account for cases where attorneys are deserving of a fee that is above the scale. See pp. VII-59 - 62.

b. Regulation of Damage Awards for Pain and Suffering

Value judgments abound in regard to the question of whether common law rules for damages for pain and suffering should be changed. See pp. VII-64 - 69. This report suggests that approaches that limit (rather than eliminate) damages for pain and suffering have the greatest potential for balancing the variety of considerations that must be evaluated in formulating such a change. If the change were applied in product liability alone, it should be specially justified.

c. Modifications of the Collateral Source Rule

Proposals to modify the collateral source rule potentially affect all of tort law. The area of product liability is one in which a selective abolition of the collateral source rule might be justified. This should occur where product liability law is not based on fault, but on principles of "risk distribution" or an "enterprise theory of liability." Very careful consideration should be given to the scope of any modification of this rule. See pp. VII-70 - 75.

d. Restrictions on Awarding Punitive Damages

A procedure that may mitigate unfairness regarding punitive damages in the area of product liability is to have the judge rather than the jury determine the amount of punitive damages. In making this determination, the judge could consider, among other factors, the amount of punitive damages the defendant has already paid. The jury would still determine whether the damages should be awarded. For details see pp. VII-75 - 80.

e. Replacing Lump Sum Damages with a Periodic Payment System

It would be useful to obtain more precise information as to whether the potential savings connected with a periodic payment system would be cancelled out by administrative costs connected with monitoring or

modifying the basic fund. This system could be more easily utilized if it were adopted with arbitration or a no-fault compensation system. See VII-80 - 84.

Major Issues Involving Third-Party Claims and Workplace Injuries

Introduction

According to the recent Insurance Services Office Closed Claim Survey, workers injured on the job are involved in 11 percent of product liability incidents resulting in claim payment. However, these incidents account for 42 percent of total bodily injury payments. Because many workplace injury claims were preceded by Worker Compensation payments to an injured party, these claims are particularly susceptible to duplication of effort and transaction costs. The Task Force considered a number of remedies that involved the potential shifting of costs among manufacturers, employers and employees. Some of the considerations in this area overlap with problems relating to cost shifting among multiple parties. In general, the report notes that the principle of contribution among defendants based on the relative responsibility of each may be a useful one. It may be inapplicable in certain situations. See pp. VII-85 - 87.

Contribution and Indemnity as Applied to Injuries in the Workplace

An important remedial proposal that has the potential of reducing product liability premium costs for manufacturers of industrial equipment is to allow them contribution claims against negligent employers where their negligence contributed to an employee's product-related workplace accident. While this remedy also has the potential of reducing the number of product-related workplace accidents, a negative aspect of it is that it would increase transaction costs. The remedy is a complicated one with a number of alternative approaches and implications. The reader is directed to pp. VII-89 - 95 for detailed information on the subject.

Prohibition or Modification of Subrogation By Worker Compensation Carriers

It would appear reasonable to reduce subrogation claims by the amount an employer was at fault in causing an injury to a worker. For a discussion of the variety of considerations involved with regard to the benefits and shortcomings of this remedy and how it might be implemented, the reader is directed to p. VII-95 - 99.

Validation of Hold Harmless Agreements

It might be appropriate to legislatively validate hold harmless clauses where the buyer of the product requested that it be delivered without safety features, altered it or failed to maintain it properly. On the other hand, hold harmless clauses can be abused and rules regarding them should take this factor into account.

Assuming both parties who sign the clause are insured, legislative validation of hold harmless clauses will have little effect on product liability rates unless insurer procedures take the existence of hold harmless clauses into account. For details about the benefits and shortcomings of proposals connected with hold harmless clauses, see pp. VII-99 - 103.

Worker Compensation As A Sole Source Of Recovery-- Abolishing the Worker's Third-Party Claim

The cost effectiveness and potential impact of Worker Compensation as a sole source for product liability recovery have made it an attractive one for those considering product liability reform. It would appear that it should be considered along with more general Worker Compensation legislative reform. In that context, estimates can be made about the overall cost of this proposal.

If this reform is implemented, the worker must receive an appropriate benefit for foregoing his third-party claim. Also, the manufacturer of a defective product should contribute to the worker's award. A procedure for accomplishing this goal is post-accident arbitration. Very careful thought must be given to

developing the details of that procedure. This overall remedy is a complex one with many competing considerations, and the reader is directed to pp. VII-103 - 112 for a discussion of the subject.

Alternative Methods for Compensating Consumer Product Injuries: No-Fault Compensation Systems and Arbitration

No-Fault Compensation Systems

Unless the tort-litigation system can be stabilized, pressures toward developing a no-fault compensation system in the area of product liability will continue. These pressures may accelerate if Worker Compensation is made an exclusive remedy for product-related injuries that occur in the workplace. Nevertheless, pure or modified no-fault plans do not represent an immediate solution to the product liability problem, and these pressures may be directed toward a practical impossibility. On the one hand, modified no-fault plans do not appear to be responsive to those pressures because they leave too much to chance. On the other hand, it is uncertain whether a practical pure no-fault first-party system can be developed -- a system both large and small private insurers would be willing to underwrite and service at insurance rates that would be available and affordable for large and small businesses.

It would be useful to conduct additional research to determine whether a practical working model could be developed that would:

- (1) Resolve problems related to coverage.
- (2) Resolve problems of causation and other individualized issues that have a special importance in the area of product liability.
- (3) Resolve whether a practical product liability no-fault system could be formulated that did not require the formation of an independent government agency.
- (4) Resolve how the system could place proper incentives for risk prevention on manufacturers whose defective products caused injury.

No-fault systems in product liability present a very complex topic. For a discussion of the topic and an explanation of these specific issues, see pp. VII-202 - 239.

Arbitration

Arbitration of product liability is a remedy worth further consideration. Of the variety of forms of arbitration, preliminary indications suggest that compulsory non-binding arbitration is the most appropriate for product liability cases. Preliminary indications also suggest that product liability arbitration is likely to bring an overall reduction of insurance costs only if larger as well as small claims are included within its scope of coverage.

Difficult value judgments arise in this area because a fundamental of American jurisprudence, the jury, is being supplanted by a smaller and more specialized group. At this time, there is no conclusive proof that the process would be more predictable, reduce costs, or expedite the judicial process. Nevertheless, our analysis indicates that a properly constructed arbitration program has an excellent potential for achieving these goals. See pp. VII-229 - 239.

NON CAUSE-RELATED REMEDIAL PROPOSALS

MODIFICATION OF PRODUCT LIABILITY INSURANCE MECHANISMS

Introduction

It has been alleged that certain modifications of product liability insurance mechanisms will allow the tort-litigation system to function reasonably well and eliminate or modify the need to enact tort law modifications that would reduce the liability exposure of defendants. These mechanisms do not always deliver what they promise, and the reader is directed to our detailed discussion of this entire subject beginning at p. VII-115.

Residual Insurance Market Mechanisms -- At The State or Federal Level?

While it might be worthwhile to have a variety of product liability residual insurance market mechanisms explored at the state level where their viability could be tested (the need for such mechanisms may also vary in different states), the Task Force's contractor reports strongly suggested that the very nature of product liability insurance indicates that these mechanisms must be implemented at the Federal level. This decision, while rooted in practicality, has very serious policy implications and the reader is directed to p. VII-115 - 118 for a detailed consideration of this issue.

Residual Insurance Market Mechanisms -- Under What Circumstances Should They Be Subsidized?

As a short-range remedy, residual product liability insurance market mechanisms might have to be subsidized if they are to have any substantial effect on product liability insurance rates. It is important to limit subsidization to insureds who face unavailability or major unaffordability problems. Otherwise, the program may establish a precedent for providing government assistance to anyone who suffers from high insurance costs. If it is necessary to subsidize residual product liability mechanisms, it would seem preferable to use public funds rather than compel stronger liability lines to support weaker ones.

Our discussion about the details and the circumstances as to whether a subsidy is justified is set forth at p. VII-119.

Assigned Risk Plans

The fact that classic assigned risk plans do not include loss-pooling mechanisms, plus problems relating to eligibility of insureds and allocations of assignments to insurers, seriously compromise the potential value of this remedy in the area of product liability. See pp. VII-127 - 130.

Pooling Mechanisms

It is worthwhile to explore whether a voluntary pooling mechanism would be practicable before utilizing any mandatory pooling system. Private insurers should give further consideration to the formation of voluntary pools, and appropriate government agencies might consider developing guidelines to assist in that process. Our discussion outlines some of the major issues that persons forming a mandatory product liability pool must resolve. The lack of specific data about the effectiveness of such a device in the area of product liability made a complete evaluation of this remedy difficult. The topic of pooling is a very complex one, and the reader should consult pp. VII-132 - 142.

Federal Insurance and Reinsurance

It would be better to attack the causes of the overall product liability problem than to establish a program where the Federal government markets and sets rates in the area of product liability insurance. See p. VII-143. The product liability problem is a fluid one, and the need for such a program could arise in the future.

The National Swine Flu Immunization program does not appear to be an apt analogy for industries suffering particularly severe insurance affordability problems. Federal reinsurance is preferable to direct Federal insurance -- reinsurance would involve less government activity in an area currently being handled by the private insurance industry. Since Federal funds would have to be used to subsidize this mechanism (or at least be put at risk), strong policy reasons would have to support the implementation of such a program. See p. VII-119. The issues of Federal insurance and reinsurance are extremely complex, and the reader is directed to p. VII-143 - 153.

Captive Insurance Companies

Captive insurance companies provide a potential means of relieving availability and affordability problems for some product liability insureds. A basic unanswered question is whether the device can be utilized by businesses that are

suffering these difficulties. The answer to this question depends, in part, on trade associations' willingness and ability to develop captives that would meet basic insurance regulatory requirements. Charter requirements could be drafted that would encourage the formation of adequately capitalized small business requirements regarding Federal income tax deductions for parent corporations that utilize captive insurance companies. Details on this complex subject appear at p. VII-154 - 167.

Structured Self-Insurance Programs

Tax incentives that encourage the development of structured self-insurance programs may benefit small businesses which have insufficient capital to form captive insurance companies. Self-insurance programs also may encourage product liability loss prevention, increase the capacity of the insurance industry to provide product liability coverage, and prevent situations from arising where a viable product liability claim against an uninsured small business cannot be enforced. On the other hand, the mechanics of the remedy must be carefully designed in order that it will not be subject to abuse. It may be appropriate for the Department of the Treasury to undertake a full tax evaluation of alternative forms for this particular remedy. Details about this remedy appear at p. VII-167.

Remedies Designed to Eliminate Unsatisfied Judgments

Our data do not show that product liability judgments are highly likely to go unsatisfied. Therefore, neither mandatory product liability laws nor unsatisfied judgment funds may be necessary at this time. See p. VII-172 - 187.

If there were relatively few cases where judgments against product manufacturers were defaulted, an unsatisfied judgment fund would be preferable to a mandatory product liability insurance law. If the problem of default judgments in the product liability area became more widespread, mandatory product liability insurance would have to be given greater consideration. From the point of view of the consumer, it is unreasonable to permit a manufacturer to sell products when he is unable to respond in damages if those products prove defective and injure product users. For a discussion of the problems relating to both

unsatisfied judgment funds and mandatory product liability insurance, see pp. VII-175 - 187.

Chapter I

The Nature of this Report and the Causes of the Product Liability Problem

THE NATURE OF THIS REPORT AND THE CAUSES OF THE PRODUCT LIABILITY PROBLEM

INTRODUCTION

This report is the culmination of over one year of intensive study about the topic of product liability. It describes the causes, nature and scope of problems that have arisen in that field. Also, it analyzes potential cures or remedies that have been proposed as solutions for those problems. It is for the use of the Administration, Federal and state legislators, as well as consumer, insurer and business groups who are interested in the topic of product liability.

The topic of product liability deals with the full scope of how our legal and private insurance systems compensate persons who are injured by products. It defines the responsibility of retailers, distributors and manufacturers for products that cause injury.

In 1975, an apparent problem (some sources said "crisis") arose in the field of product liability. A number of manufacturers and business periodicals alleged that product liability insurance had become unavailable or unaffordable. The consequences of this situation included the possibilities that businesses might terminate because they were unable to get coverage; that injured persons would be unable to enforce product liability judgments; and that manufacturers would be hesitant to produce some products that would be useful in our society. It was also alleged that the system of private insurance in the field of product liability was breaking down. Finally, it was alleged that relatively few injured persons benefited from the system.

As will be detailed in the succeeding pages of this chapter, in April 1976 a Federal Interagency Task Force was established by the Economic Policy Board of the White House to study the product liability problem and report back to it on or before December 15, 1976. A report based on that document, entitled "The Federal

Interagency Task Force on Product Liability Briefing Report," was released to the public on January 4, 1977.

The Briefing Report was a highly condensed "still picture" of the product liability problem as it existed in December, 1976. It was based on preliminary drafts of three independent contractor studies commissioned by the Task Force as well as pre-December 1, 1976 data and information. The independent contractor reports were in the legal, insurance and industry areas. Since the distribution of the Briefing Report, the Task Force staff has edited the final versions of the contractor reports. The reports have been published and are described at p. I-12. We have found that an overall impression of this initial report about product liability law was a correct one--product liability problems present a potential disruptive effect on the economy. More importantly, the problem is not amenable to simple remedies. It is a subtle problem in which the interests of consumers, workers, manufacturers, distributors, retailers and insurers have to be balanced.

This report is based on the final versions of the contractor reports and the wide array of resources set forth later on in this chapter. While we believe it is the most thorough study of the topic of product liability that has been published in the United States, we would note that it does not purport to answer all questions relating to the product liability problem. It does reach some important conclusions about the subject and shows lines of study which are necessary to resolve additional matters. As the report will show, firm conclusions about the product liability problem are difficult to reach because data on some major questions are limited or unavailable. Nevertheless, our overall approach has been to reach conclusions where possible; we appreciate the observation that there is always "room for more study" about any topic. The product liability problem can be alleviated in the immediate future, although the more promising solutions will take time to shape and implement.

It is our hope that this report and our three independent contractor reports will be of assistance to the Administration and legislators, as well as to consumer, insurer and business groups and to others who are interested in a balanced and sound

resolution of problems that have arisen in the field of product liability.

THE BASIS FOR A FEDERAL STUDY ON PRODUCT LIABILITY

We have received a number of inquiries as to why the Federal government has studied the product liability problem. The questioners point out that product liability has generally been a topic of state law and that related insurance mechanisms are also regulated by the states. The Federal government's interest in the product liability problem arose in the fall of 1975. The United States Small Business Administration published a report entitled, "Product Liability: Its Implications for Small Business." Around that time a number of manufacturers and trade associations formed product liability committees. By January of 1976 a good number of businesses--especially in the capital goods area--wrote the Administration and Congress that a "crisis" had arisen in the area of product liability. They stated that the cost of product liability insurance had increased at an extraordinary rate in the 1974 to 1976 years, and that the number and size of claims had also increased at unprecedented rates. The Office of Chief Counsel for Advocacy in the Small Business Administration received reports from small manufacturers indicating that product liability insurance costs had become a significant force that was jeopardizing small businesses. By the spring of 1976, some retail and distributor groups had also brought to the attention of the Federal government the fact that product liability was a serious problem for American business.

In this early period some extraordinary assertions were made that we have been unable to validate. For example, some insurers predicted that one million product liability claims would be filed in 1976. The insurance industry's own best estimate today is 70,000¹. Many letters told about cases where it seems transparently unfair for the plaintiff to recover damages. We have found that these so-called "horror stories" do not represent the standard of the day, but they do occur on occasion. These cases have helped generate a "crisis" atmosphere--our report will detail why.

These early "calls for help" from the Federal government were sometimes accompanied by proposed solutions or "remedies." Most

of these remedies focused on the tort-litigation system and called for rules that would curtail the number of successful product liability claims that could be brought against manufacturers.

The initial Federal government response to these "calls for help" was to have the Department of Commerce undertake a brief study of the product liability problem. In March of 1976, the Department issued a report entitled "Product Liability Insurance: Assessment of Related Problems and Issues" (Bureau of Domestic Commerce, 1976). That report suggested that there might be a widespread problem with regard to both availability and affordability of product liability insurance. It also indicated that product liability might be placing a great financial strain on the insurance industry. The report emphasized that its tentative conclusions had to be qualified and requalified as more data (or lack of data) came to the government's attention.

This initial report prompted the Administration to form an Interagency Task Force to study the product liability problem in more depth. The Task Force began its work in the late spring of 1976 and was asked to report to the Economic Policy Board (EPB) by December 15, 1976. The Task Force completed that mission and a Briefing Report (which was derived from the report to the EPB) was released for the public's use and information on January 4, 1977. The Briefing Report set forth the Task Force's tentative conclusions about the product liability problem².

A decision was made to edit and publish the three independent contractor reports that had served as predicates for the Briefing Report. The basis of that decision was to avoid duplicative and time-consuming work on the part of legislators, state commissions and private organizations. It was also decided to publish a Final Report that would synthesize and evaluate the contractor reports as well as other information that came to the attention of the Task Force and its staff.

THE FEDERAL INTERAGENCY TASK FORCE ON PRODUCT LIABILITY-- ITS RESEARCH AND OPERATIONS

The Task Force

The Federal Interagency Task Force on Product Liability was chaired by the Under Secretary of Commerce. In its initial work through the publication of its Briefing Report, the chairman was Edward O. Vetter. The present Under Secretary of Commerce, Sidney Harman, guided the Task Force through the publication of its independent contractor reports and this Final Report. Policy guidance of Task Force operations at the Department of Commerce was also provided by the present General Counsel, Mr. C.L. Haslam, Deputy General Counsel Mr. Homer E. Moyer, Jr., and former General Counsel, Mr. J.T. Smith. Other members of the Task Force included the Departments of Health, Education and Welfare; Housing and Urban Development; Labor; Transportation; Treasury; the Council of Economic Advisors; the Office of Management and Budget; and the Small Business Administration. The Consumer Product Safety Commission, which was not a member of the Task Force, provided advice and assistance. The Department of Justice, a member of the Task Force in its initial stages, provided assistance in response to specific inquiries.

The Working Task Force

Each Task Force member appointed one or more persons to a Working Task Force group. That group met every ten days in the first six months of the study and then continued to review work products as they were developed. Professor Victor E. Schwartz of the University of Cincinnati College of Law, co-author of the most widely used torts casebook in the United States, served as chairman of the Working Task Force and provided overall direction of the substantive content of the study.

The Staff

Staff effort for the project was carried on primarily by persons working for the Department of Commerce. Responsibility with regard to the preparation of this report and designing and editing the underlying contractor reports was undertaken by

numerous individuals at the Department of Commerce. They are acknowledged at p. vi of this report.

The staff benefited from the expertise and assistance of Mr. Howard Clark, Special Assistant to the Administrator of the Federal Insurance Administration of the Department of Housing and Urban Development.

The Task Force's General Guidelines on the Scope of the Study

In May, 1976, the Task Force decided that its study should concentrate on product liability problems in nine³ specific product lines divided relatively evenly between workplace and consumer products. The reason for this was twofold. First, in light of the time and resources allocated for the study, it would not be practical to study all kinds of products. Second, it was the Task Force's judgment that it would be sound to consider product lines that had the potential for causing serious injury. Also, manufacturers of most of the products selected appeared (on the basis of anecdotal data) to have product liability insurance problems. It was thought that through this approach, the Task Force would be able to gauge the full impact of the problem.

Information about other products did come to the attention of the Task Force staff. Where the information was useful it was utilized in this report. See, e.g., Chapter V, Table V-6. The products studied were:

Products with workplace impact:

1. Industrial machinery: metal cutting, metal forming, wood-working and textile machinery;
2. Industrial grinding wheels;
3. Ferrous and non-ferrous metal castings, primarily those used as components of capital equipment; and
4. Industrial chemicals, including both organic and inorganic substances, used in products and in the production process.

Products with consumer impact:

1. Aircraft components;
2. Automotive components related to safe vehicle operation, including their manufacture and distribution, but not their installation and repair;
3. Medical devices;
4. Pharmaceuticals; and
5. Power lawnmowers.

The Task Force also determined that the study should concentrate on traumatic injury and not occupational disease. The latter⁴ topic was deemed part of general studies on Worker Compensation⁴. Also, time considerations made this decision necessary.

GENERAL SOURCES OF INFORMATION FOR THE STUDY

Interagency Commentary

In order to provide an ongoing focal point for the study, Professor Schwartz developed a working paper on remedial approaches to product liability. The first draft of that paper was distributed to the Task Force in July of 1976. Subsequent revised versions of the working paper were distributed, and comments from the various agencies were synthesized and incorporated where possible. As information from the independent contractors and other sources (set forth below) came to the attention of the Task Force, that original working paper evolved into Chapter VII of this report. That chapter was then circulated to the agencies for comments and suggestions.

Agency commentary was sought with regard to each of the other chapters of this report. Interagency review was of substantial benefit in ensuring both the objectivity and accuracy of the content of the report.

Product Liability Symposium

In order to generate new ideas and perspectives about the product liability problem, a symposium was held by the Working Task Force in July of 1976⁵. The speakers at the symposium included the Reporter of the Restatement (Second) of Torts, an author of one of the leading casebooks and treatises on the topic of product liability, an acknowledged academic expert on the topic of insurance, a leading expert on no-fault compensation systems, experienced plaintiff and defense attorneys, and professors of engineering and economics. These individuals are acknowledged at p. ix.

Notice in the Federal Register

In order to acquaint all persons who might be interested in our study, a notice entitled "Scope of Research Being Conducted on Product Liability" was published in the Federal Register on Monday, September 20, 1976, 41 Fed. Reg. 40529 (1976). The notice described the nature and scope of the study undertaken by the Task Force and sought relevant information from interested parties. It resulted in several hundred letters reaching the Task Force. Some of these letters provided information about remedial proposals and were utilized in Chapter VII. Others provided information about cost and availability of insurance. These letters were of assistance in our preparation of Chapter VI in our specific discussion of insurance availability and affordability.

Product Liability Advisory Committee to the Under Secretary of Commerce

The Under Secretary of Commerce formed a special Advisory Committee on Product Liability. Under law, the Advisory Committee was solely responsible to the Under Secretary; however, he shared the information provided by the Advisory Committee with the Task Force and also coordinated the Task Force's study efforts with this committee. While the committee members provided helpful information and insights about the product liability problem, it was not chartered to and did not approve or disapprove of this report.

The committee (chaired by the Honorable Ned Price, Member, State Board of Insurance of the State of Texas, initially consisted of 19 members from small and large manufacturers, distributors, retailers, insurers, consumers, labor, and attorney groups. Seven additional persons were added in January 1977, including a representative of the service industries. The names and affiliations of the Advisory Committee are set forth at p. viii of this report.

The Advisory Committee met four times during the course of our study⁶. The initial meeting was held on September 20, 1976. The purpose of that meeting was to gather the perspectives of the various interest groups about the product liability problem. The purpose of that meeting was to obtain the members' reactions to approximately 30 remedial proposals that had been brought to the attention of the Task Force. The third meeting was held on January 11, 1977. The purpose of that meeting was to gather the committee's reactions to the Briefing Report that had been published by the Task Force on January 4th. The fourth meeting of the Advisory Committee was held on June 27, 1977. The purpose of that meeting was to evaluate the Task Force's three independent contractor reports in the insurance, industry and legal fields. Specific questions were directed to the committee about shortcomings in the reports. The committee members' views were also sought as to whether the product liability problem had changed since 1976.

Information from Industry Associations and Interest Groups

A considerable amount of information and opinions about product liability was supplied to the Task Force by organizations that had an interest in the outcome of the study. Some of these organizations were: the Insurance Services Office; the American Insurance Association; the Alliance of American Insurers; the Property-Casualty Insurance Council; the National Association of Independent Insurers; the Defense Research Institute; the Association of Trial Lawyers of America; the Risk and Insurance Management Society; the American National Standards Institute; the Independent Insurance Agents of America; the National Association of Mutual Insurance Agents; the National Federation of Independent Businesses; the National Product Liability

Council; the National Association of Wholesaler-Distributors; the Machinery and Allied Products Institute; the National Product Liability Council; the National Association of Insurance Brokers; the National Machine Tool Builders Association; and numerous other industry associations.

The National Association of Insurance Commissioners (through its representative to the Under Secretary's Advisory Committee, Judge Ned Price) gave its cooperation to the Task Force effort. Also, the National Conference of State Legislatures (through its Director of Social Services Project, Deborah Bennington) was of special assistance to the Task Force staff in alerting it to product liability legislative developments at the state level.

Information Regarding Consumer Perspectives on the Product Liability Problem

The Task Force was very interested in obtaining the consumer perspective about the nature of and solutions to the product liability problem; this was essential if our study was to achieve the goals of being both objective and balanced.

We have identified two principal interests of the consumer in the product liability problem. First, the consumer has an interest in obtaining reasonable compensation when he or she is injured by an unreasonably unsafe product. Second, the consumer has an interest in ensuring that the total cost of product liability does not create an irrational increase in the price of products. See Letter to the Task Force Project Director from Mrs. Esther Peterson, Special Assistant to the President for Consumer Affairs (5/3/77).

The Task Force and its staff were able to obtain some helpful insights into the consumer perspective from the consumer representatives on the Advisory Committee to the Under Secretary of Commerce.

Other helpful information on the consumer's perspective included the statement Ms. Anita Johnson, of the Public Citizen's Health Research Group, presented at the fourth meeting of the Advisory Committee to the Under Secretary of Commerce as well as the statement Ms. Johnson presented before the Senate Committee

on Commerce, Science and Transportation on April 29, 1977; the statement of Ms. Kathleen O'Reilly, Executive Director of the Consumer Federation of America, presented to that same committee on April 27, 1977; the statements of Mr. Ralph Nader, delivered to the Senate Select Committee on Small Business on December 8, 1976 and to the First World Congress on Product Liability on January 21, 1977. The First World Congress on Product Liability also produced a helpful consumer analysis undertaken by Ms. Benedicte Federspiel, Director of the Legal and Economic Division of the Danish Consumer Council. See Transcript, First World Congress on Product Liability, p. 331 (1977).

In its analysis of product liability remedies, our legal contractor was directed to consider each from the perspective of the injured consumer. The same pattern has been followed in Chapter VII of this report.

Hearings Undertaken by Congress

Hearings undertaken by Congress were an excellent source to test data and other information gathered by the Task Force. Task Force staff members attended these hearings and the statements submitted were given careful review. The Task Force expresses its appreciation to the chairmen, members and staff of those committees for their cooperation with our project.

Among the materials considered were those developed at: Hearings conducted by the Senate Select Committee on Small Business on September 8, 10, October 20, December 8, 1976 and March 9, 10, and April 26, 1977 (Senator Gaylord Nelson, Chairman); Hearings held before the Consumer Subcommittee of the Senate Committee on Commerce, Science and transportation, April 27, 28 and 29, 1977 (Senator Wendell Ford, Chairman); and Hearings held by the House Subcommittee on Capital, Investment and Business Opportunities of the Committee on Small Business on April 4, 6, 18, June 6, 28, 29, July 16, 18 and 19, 1977 (Representative John LaFalce, Chairman).

The Task Force's Independent Contractor Reports

While this report made extensive use of the materials discussed thus far, its principal resources were the three

independent contractor studies commissioned by the Task Force. A brief description of those reports and their underlying data bases follows.

The Legal Study

Description of the study

The Task Force's Legal Study was undertaken by The Research Group, Inc. It has been published in seven volumes and is available from the National Technical Information Service ("NTIS")⁷.

The purpose of the Legal Study was to provide an accurate picture of current product liability law doctrine in the United States, indicate data available in the legal system about product liability, develop an independent survey of appellate cases in the area of product liability, and analyze approximately 30 remedial approaches that had been proposed as potential improvements in the area of product liability. In evaluating remedies the contractor was to consider both economic and engineering perspectives. The principal sources of information utilized by the Legal Study were:

1. Data relating to product liability cases filed in the United States District Courts from 1974 through 1976. These are the only years this type of information was accumulated. The results of this information are set forth in Chapter II.
2. Data relating to product liability cases filed in the State of Connecticut from 1974 to 1976. Our Legal Study found that Connecticut was the only state that assembled that information. The results are set forth in Chapter II.
3. The Cook County Illinois Jury Verdict Survey of product liability cases decided from 1970 to 1975. The results of this survey are set forth in Chapter II.
4. A survey of 655 reported product liability appellate cases in eight representative states. The states

included Arizona, California, Illinois, New Jersey, New York, Pennsylvania, Texas and Wisconsin. The results of that survey are set forth in Chapter II.

5. A review of all significant legal literature on the topic of product liability published from 1970 to 1976. The results of this review are reflected in Chapter VII.

Limitations on the Legal Study

The data accumulated by the Legal Study are somewhat limited in their value. The original data collected are based on appellate cases. It should be noted that appellate cases represent a very small percentage of the actual cases filed. Appellate decisions are usually the more important product liability cases where complex legal issues must be resolved. Nevertheless, at our Working Task Force Symposium, representatives of both the plaintiff's and defendant's bar suggested that appellate cases in the area of product liability law tend to be more representative of cases as a whole than is the situation in other areas of tort law, e.g., automobile negligence cases.

The Legal Study did not, and was not requested to, survey all product liability cases at the trial level. This would be an almost impossible undertaking. In most courthouses, cases are not categorized under the topic of product liability. This means that all cases filed would have to be surveyed in order to determine what occurred in the narrow area of product liability. The cost of such an undertaking would be prohibitive.

In its remedy discussion, the Legal Study did not totally synthesize its economic and engineering analysis with its legal analysis--its analysis of remedies was undertaken under a very short time frame. Nevertheless, commentary on the report reaching the Task Force staff suggests that it is the most complete analysis of product liability remedies that has been published prior to the issuance of this report.

Insurance Study

Description of the study

Our Insurance Study was undertaken by McKinsey, Co.⁸ It has been published in one volume and is available from NTIS⁸. The Insurance Study describes how product liability insurance is currently provided and how insurers develop product liability underwriting rates. The report assesses the response of existing residual insurance mechanisms (reinsurance, surplus lines insurance and self-insurance) to the product liability problem. Finally, it provides the perspective of insurers on proposed remedies for the product liability problem.

Our Insurance Study based its conclusions on:

1. Personal interviews with 141 members of the insurance community who are involved in handling product liability insurance brokerage ratemaking and underwriting.
2. A review of approximately 3,000 underwriting files on product liability cases in six insurance companies--our insurance contractor reported that these companies are among the largest writers of this class of business.
3. A survey of large--over \$100,000--claims closed in 1975, conducted by the American Mutual Insurance Alliance.
4. Seventeen industry association surveys that were supplied to the insurance contractor by the industry contractor.

Limitations on the Insurance Study

In general, the Insurance Study relied on information supplied to it by the insurance industry. It did not make a detailed independent analysis of the profit and loss situation in that industry. Its review of 3,000 underwriting files provided firsthand information about ratemaking practices; nevertheless, in some respects, the sample may not have been representative of the entire industry. The Insurance Study only provided a limited analysis of claims experience. This was based principally on a

limited closed claim survey of 79 \$100,000+ claims.⁹ The insurance contractor was not instructed to undertake a closed claim survey because one had been undertaken by the Insurance Services Office. The results of that study were not available to the contractor in time to incorporate in its study.

The Insurance Study's estimate of how the product liability premium dollar is allocated by insurers may be misleading: where the report speaks of dollars "paid to claimants," it is actually referring to dollars insurers expect to pay to claimants. See Insurance Study at 2-4. The importance of this distinction is developed in Chapter V of this report.

The insurance contractor's evaluation of remedies is derived from insurer perspectives. As a reading of the report will reflect, those sources do not always agree on the utility of particular remedies.

Industry Study

Description of the study

The Industry Study was undertaken by Gordon Associates, Inc. It has been published in two volumes and is available from NTIS.¹⁰

The industrial contractor surveyed the claims experience of small, medium, and large corporations in the nine product lines selected by the Task Force for study. It also analyzed industry association surveys that had been undertaken by organizations cooperating with our study. Finally, the report was to consider remedial proposals that could be generated by industry itself, the most important of which was product liability prevention.

The Industry Study based its conclusions on:

1. An independent telephone survey of 337 firms in the product lines selected by the Task Force. The firms were evenly distributed among small, medium and large corporations.

2. An analysis of the results of product liability surveys conducted by 17 national industry associations.
3. Interviews with executives in 20 firms in high-risk product categories. The contractor selected these persons as a result of its consultations with industry association personnel in our target industries.
4. A review of accident statistics from state Worker Compensation bureaus and the Consumer Product Safety Commission.

Limitations on the Industry Study

It should be noted that while the industrial contractor's original data collection is described herein as a "telephone survey," the participants were notified a reasonable period ahead of the time that actual responses were obtained. The participants were given a detailed questionnaire so that they would be aware of the information that would be sought by telephone.

This method was selected because it was thought that a higher response rate was possible than might be obtained in a mail survey; also, personnel from the contracting firm were able to assist respondents with definitional problems.

It should also be noted, however, that the telephone survey was not designed on the basis of psephological methods. The Office of Management and Budget indicated that the information collected would not necessarily "be representative of either the product liability experience of an industry as a whole or the product liability experience related to particular industrial or consumer products."¹¹ Nevertheless, the members of the Product Liability Advisory Committee to the Under Secretary of Commerce, who represent some of the industries most severely affected by product liability, generally agreed that the findings of the Industry Report were accurate with respect to the product lines surveyed. The findings were also supported by independent industry association surveys.

Although the industry association surveys contributed to the analysis, it should be noted that they differed in their methods of calculation, analytical approach and rigor. Response rates were quite low in the majority of the studies--less than 20 percent in most cases. While it might be assumed that only those with the more serious product liability problems responded, it has been suggested to the Task Force that some companies are reluctant to disclose information of this type because it may be utilized against them for competitive or litigation purposes. The industry association surveys relied on voluntary responses, and sometimes returns were incomplete. One of the more comprehensive surveys was undertaken by the Machinery and Allied Products Institute . It had the best response rate, 210 responses from the 480 solicited. Twenty industry association surveys (three more than were utilized in the Industry Report) are reviewed in this report in Chapter III.

The Industry Report's interviews with 20 firms involved firms which were experiencing more serious product liability problems; therefore, they do not necessarily represent nationwide product liability experience. Nevertheless, the interviews provided some information that might not be obtainable by surveys.

The data reviewed by the industrial contractor from Federal accident reporting systems and state reporting systems did not focus specifically on product liability. For the most part, it was information that flowed from Worker Compensation systems. The purpose of the data collection was to provide some overall focus on accident experience.

Although the original study plan called for the industrial contractor to study remedies that could be implemented by industry alone, the contractor focused on proposed solutions which had been emphasized by persons interviewed in the course of the contractor's study and which might be implemented in a relatively short period of time.

The industry contractor collected a very large amount of data in a relatively short period of time. The data were reviewed for consistency and accuracy by the Office of Business and Legislative Issues at the Department of Commerce.

AN OVERVIEW OF THE CONTENTS OF THIS REPORT

This chapter, Chapter I, sets forth an introduction to the work of the Task Force and also discusses (in the next section) the basic causes of the product liability problem.

Chapter II, entitled "Product Liability: A Legal Framework," is derived from our Legal Study. It presents an overview of product liability law and focuses on five major issues that have been of major importance in the development of that law. The chapter also reviews the product liability data presently available from the legal system and sets forth the results of the independent survey of product liability appellate cases undertaken by our legal contractor. The chapter provides a picture of the present rules of law that have been, in part, a cause of the product liability problem.

Chapter III, entitled "The Impact of Product Liability on Selected Industries," is derived from our Industry Report and industry association surveys. It shows the impact of product liability on the target industries selected by the Task Force. A synthesis of its findings is presented in the beginning, and then a more detailed discussion of the results follows. There is a discussion of the differences between what was shown by our telephone survey and the industry association surveys undertaken by outside groups. Three additional industry association surveys that were not available to the industrial contractor are analyzed in Chapter III.

Chapter IV, entitled "Product Liability Prevention Techniques," shows what we have learned about the implementation of product liability prevention techniques by manufacturers in our target industries. It also discusses the steps taken by insurers toward assisting insureds with the development of product liability prevention programs. Finally, the chapter provides some analysis of how product liability prevention programs might be used in the future.

It should be noted that the impact of the tort system on product liability prevention is discussed in Chapter VI and that potential legal remedies dealing with product liability

prevention are set forth in Chapter VII, Section V of this report.

Chapter V, entitled "Product Liability Insurance," discusses the role product liability insurers have played in resolving or causing the product liability problem. It explains the nature and scope of the product liability insurance policy. It describes the product liability insurance underwriting process and ratemaking procedures. The chapter also analyzes the recent profit and loss situation in the property and casualty insurance industry. It discusses how insurance market mechanisms such as reinsurance and excess lines insurance are alleviating the product liability problem. Finally, it sets forth conclusions regarding the role of the insurance industry in regard to the product liability problem and indicates how the situation might be improved.

Chapter VI, entitled "Major Impacts of Product Liability," provides a summary of our major findings: it attempts to synthesize what our legal, insurance and industry data and other information show. The chapter summarizes for policymakers both the positive and negative aspects of the current product liability system. It discusses the impact of product liability on the affordability and availability of insurance; persons injured by products; Worker Compensation systems; survival in business; and product liability prevention techniques.

Chapter VII, entitled "Remedial Approaches in the Field of Product Liability," analyzes the more significant product liability remedies that were brought to the attention of the Task Force. Obviously, the Task Force could not analyze every remedial approach brought to its attention; some judgment had to be exercised as to which were the more important. First, the chapter considers proposed modifications of some basic product liability rules, for example, rules that relate to the responsibility of a user of a product. Second, it considers proposed modifications of some basic product liability rules relating to damages. An example would be proposals that would alter the manner in which attorneys are compensated. Third, the chapter considers proposed product liability rules relating to a defendant's right against third parties. This section focuses on remedies relating to injury in the workplace, and the

relationship between the injured employee, his employer, and the manufacturer of the product that injured the employee. Fourth, the chapter analyzes proposed modifications of product liability insurance mechanisms. Here assigned risk pools, reinsurance, direct Federal insurance, mandatory and voluntary pooling, captive insurance companies and structured self-insurance programs are considered. This section also focuses on legal means whereby insurers or the government would be required to assist manufacturers in the development of product liability prevention programs. The section also analyzes remedies designed to eliminate unsatisfied judgments. Fifth, the chapter evaluates alternative methods for compensating consumer product injuries. There is a discussion of both no-fault compensation systems and arbitration. The major conclusions of the chapter are synthesized and summarized in a final section.

Chapter VII has been placed at the end of this report because it is based on considerations in all the prior chapters. Nevertheless, legislators or others who are interested in reform proposals and want an immediate view of the Task Force's suggestions should read the summary of that chapter (pp. VII-242).

THE CAUSES OF THE PRODUCT LIABILITY PROBLEM

Introduction

The Task Force's Briefing Report identified three principal causes of the product liability problem: liability insurance ratemaking procedures, the tort-litigation system and manufacturing practices. Little has changed in the intervening months to alter our perspective on this issue. Therefore, our discussion of the causes of the product liability problem will closely parallel the Briefing Report. Nevertheless, where new information has come to the attention of the Task Force or its staff, it will be identified. More importantly, unlike the Briefing Report, this document will provide a detailed analysis of remedies that purport to address each of these causes.

We are still unable to rank these causes in a meaningful hierarchical chain. Our data simply do not permit a conclusion that one cause is more important than the other. On this issue,

we doubt whether data could be obtained that would accomplish that goal.

Nevertheless, we have observed a tendency for each group that has a special interest in the product liability problem to assert that "the cause" lies in conduct unrelated to their own group. For example, most insurers contend that the dramatic increase in product liability insurance premiums is caused by the tort-litigation system. On the other hand, the plaintiff's bar asserts that the cause lies in insurer ratemaking practices and in the failure of manufacturers to use proper product liability prevention techniques. Some manufacturers, in turn, have asserted that the problem has been caused by an irresponsible plaintiff's bar: it is alleged that plaintiff's attorneys bring frivolous claims and have brought about a system of tort law that makes product liability prevention useless as a means of guarding against lawsuits.

It is our view that the product liability problem is based on a confluence of causes and that it will only be resolved if each cause is properly addressed.

Aside from the three principal causes, there are other causes that may have contributed to the problem. While we have discussed those causes herein, they are generally not matters that can be resolved by the remedial proposals discussed in this report, e.g., inflation and the increase in number and complexity of products.

Discussion of the Causes

Cause I: Liability Insurance Ratemaking Procedures

The Briefing Report identified liability insurance ratemaking practices as a cause of the product liability problem. As our data set forth in Chapters III, V and VI show, there have been very substantial increases in product liability insurance premiums in our target industries during the years 1974-1976. We have received anecdotal data that the same has been true for certain industries that were not included in our study, e.g., ladder manufacturers, manufacturers of sporting goods.

On the other hand, there have been no published data that show a similar nationwide increase in the average size of the verdicts rendered against defendants in those industries. Our data do suggest that there has been a substantial increase in the number of pending claims, and our legal contractor found on the basis of limited data collected in the legal system that the average amount of product liability judgments did increase during the 1970-1975 period. Nevertheless, these increases did not appear to the contractor to be large enough to support insurance company premium increases.

In the overwhelming majority of cases, insurance company sources did not rely on data (either in terms of number or size of claims) to support premium increases that occurred in the 1974-1976 period. Thus, at congressional hearings held to determine the role of insurer ratemaking practices in regard to the product liability problem, James A. Kassel, Vice President of the Hartford Insurance Group stated, "the paucity of information we have been able to report to you is an embarrassment..." See Hearings before the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess., Transcript, p. 372 (June 28, 1977). Mr. John K. Dane, Vice President of Liberty Mutual Company, also indicated that "a large part of products liability insurance had been priced in such a way that no ratemaking or claims data were generated..." See Hearings before the Subcommittee on Capital, Investment and Business Opportunities, supra at p. 431.

This testimony tends to confirm a finding of our insurance contractor: it found that neither insurance company representatives nor the Insurance Services Office (the principal ratemaking organization for the insurance industry) have a significant amount of data on the percentage of "pure" product liability experience losses. For the most part, product liability experience, most of which is composite-rated, loss-rated, or large (a) rated¹², has not been separately recorded.

Nevertheless, based on the limited statistical information that was available, the insurance contractor concluded that insurance companies in the 1971-1974 period "lost money" on product liability business. The insurance contractor based its finding on a showing that "incurred" losses¹³ grew more rapidly

than premiums. As Chapter V explains, incurred losses do not equal paid losses; rather, that figure includes paid losses, amounts "reserved" against pending claims and also amounts "reserved" against incurred but not reported claims. As Chapter V shows, insurance industry regulators do not systematically determine whether amounts reserved in incurred loss figures in the area of product liability turn out to be too high. This can occur not only when the reserve estimate is too high, but also when the interest or capital gains that may flow from reserves is substantial. This topic is developed in Chapter V at p. 34.

A number of representatives from the insurance industry have said that its product liability rates were set too low in the 1971 through 1974 period. In that regard, insurance industry spokesmen have frequently observed that product liability insurance was "practically given away" in that period of time as part of a larger insurance package. See Statement of James A. Kassel, Hearings before the Subcommittee on Capital, Investment and Business Opportunities, supra at 371. Consumer groups find this explanation unsatisfactory. They argue that insurance companies aggressively sought product liability business in the late 1960's and early 1970's in order to generate income for investment purposes. When the "bear market" struck in 1973-1974 and the insurance industry took heavy losses, thus reducing policyholder surplus, this (it is argued) caused a shortage in underwriting capacity. Thus, stock market losses, together with underwriting losses, led to the considerable increases in product liability premiums.

On the other hand, insurers argue that in the early 1970's, they were not aware that product liability would become a substantial problem. Nevertheless, our Legal Study shows that strict product liability first came into the law as an important matter with the publication of the Restatement (Second) of Torts Section 402 A in 1965. By 1971 and 1972, a number of major states (e.g., California, Illinois, Michigan, New Jersey) had adopted strict product liability theories. Nevertheless, this did not alter the product liability insurer practice of combining product liability coverages in Comprehensive General Liability packages. This practice, along with uncertainties in insurer reserving practices, makes it almost impossible to obtain an accurate profit and loss picture for product liability insurance.

As indicated in Chapter V, we have been unable to make a finding as to whether product liability premium increases were, as a whole, justified in the 1974-1976 period. Nevertheless, all of the evidence reviewed by the Task Force confirms suspicions of the director of McKinsey, Co., our insurance contractor, that some insurers engaged in "panic pricing." See Hearings before the Subcommittee on Capital, Investment and Business Opportunities, supra at p. 279 (June 6, 1977). It also confirmed his observation that product liability rates are "effectively uncontrolled." See Hearings before the Subcommittee on Capital, Investment and Business Opportunities, supra at p. 286 (June 6, 1977). In spite of all this, a number of insurer sources contend that "notwithstanding the shortcomings of our present data base, for many purposes insurer pricing methodologies and prices for products liability are by no means invalid, useless, or in any way lacking in integrity.... a better data base will result in more reliable pricing, but the absence of that base does not mean that our insurer pricing is wrong." See Remarks of James A. Kassel, Hearings before the Subcommittee on Capital, Investment and Business Opportunities at p. 372 (June 28, 1977).

The absence of data appears to make it impossible to confirm whether insurer price increases in the area of product liability are justified. As insurers appreciate, product liability premiums cannot be utilized to recoup past losses. Nevertheless, it would appear that some insureds may be paying a higher premium than data would justify, and others may be paying a lower premium. The burden of proof would appear to fall on the insurers to justify increases of 200, 300, or 400% in premiums where they do not have data based on claims experience that would suggest that increases of this type are proper. Our conclusions as to how product liability ratemaking procedures might be improved and this cause of the product liability problem alleviated appear in Chapter V at p. 48.

Cause II: Manufacturing Practices

As the Briefing Report indicated, a review of 655 appellate cases by our Legal Study produced some evidence that part of the product liability problem stems from the fact that some manufacturers are producing unreasonably unsafe products. These products are mismanufactured--they suffer from defects in

construction. The products are not in accord with the manufacturer's own specifications. In that connection, our legal contractor noted that in 140 of the 655 appellate cases it sampled, plaintiff relied solely on the fact that there was a defect in the manufacture of the product that caused the injury. Plaintiff was successful in 58 of those cases, was unsuccessful in 36 and 46 were remanded. A review of the cases strongly suggests that careful product liability prevention techniques in the area of quality control would have eliminated the basis for many of those lawsuits.

The same source showed that plaintiff was less successful when he alleged that it was a defect in design that caused his injury. Here, product liability prevention techniques might have prevented some of the suits or at least rendered them unsuccessful. On the other hand, some cases reflect that juries on occasion are allowed to render a "hindsight judgment" about whether the manufacturer designed his product carefully. Product liability prevention would not have prevented those cases.

Our Industry Survey suggests that a number of manufacturers (especially small businesses) do not have planned product liability loss prevention programs in the basic areas of design research and quality control. See Chapter IV at p. 3 - 4.

The Legal Study showed that some manufacturers do not provide adequate instruction about the dangers that may spring from their products. Product liability prevention procedures have advanced to a point where consumer product misuses may be anticipated before they occur. Nevertheless, a few courts have applied principles of hindsight in this area and appear to require manufacturers to foresee the unforeseeable.

Our Industry Study suggests that some manufacturers do not see a direct relationship between product liability prevention and insurance premium costs. If they did see this relationship, there would be more incentive to give more attention to product liability prevention. We discuss this issue and remedies that might improve the situation in Chapter VII at p. 238.

It has been suggested that insurers be required to provide product liability prevention advice to their insureds. We

discuss the benefits and shortcomings of this remedy in Chapter VII at p. 177.

Finally, it has been suggested that the government might provide additional information, data or actual personnel assistance to manufacturers to aid them in implementing product liability prevention techniques. Our discussion of this remedy and its implications are set forth in Chapter VII at p. 183.

It does not appear that industry is becoming less interested in product liability prevention techniques. In point of fact, limited data suggest the opposite conclusion. See Chapter VI at p. 47. Nevertheless some companies--especially some smaller ones--are unable to devote adequate resources to product liability prevention programs and do not receive assistance from their insurance companies in regard to this problem. It would appear that the overall product liability problem would be reduced in the long run if improvements could be made in this area.

Cause III: The Tort-Litigation System

Insurers and many manufacturers have strongly argued to the Task Force that changes in the tort-litigation system have been the primary cause of the product liability problem. It is alleged that the system has brought about an avalanche of claims, unreasonably high verdicts, and a situation where persons recover damages simply on the basis of showing that a particular product injured them.

Data sources conflict as to whether the number of claims filed has increased substantially in our target industries over the total 1970-1976 period. Our industrial contractor's telephone survey does show that the number of pending claims has increased each year. As has been indicated, our data are much less certain in regard to whether there has been a similar increase in the size of judgments or verdicts. Our Legal Study's review of 655 appellate cases does show an increase. A survey conducted of product liability cases in Cook County Illinois from 1970-1975 does show a substantial increase in the size of awards. See Chapter II at p. 46. It is also relevant to note that our industrial contractor indicated that data collected from public

accident reporting mechanisms provide some indication that the number of product-related injuries in most of our target groups has not increased as rapidly as the number of product liability claims. See Chapter VI, P. 39. .

Limited data show that plaintiffs do not win every litigated case. Our Legal Study's sampling of appellate cases shows that the defendant "won" in approximately 49% of the cases. The Cook County Illinois jury survey of product liability cases from 1970-1975 show that the defendant won in approximately 65% of the cases. . Nevertheless, data from the Insurance Services Office suggest that 96% of product liability cases are settled before court verdict.¹⁴ In the majority of cases that are settled, plaintiff receives some award.

Our Legal Study's review of the tort-litigation system suggests that it does not, in general, impose absolute liability on manufacturers of products. In many situations, a jury is asked to balance the economic burden on the manufacturer to produce a safe product against the probability that the product may cause injuries and the severity of those injuries. In light of these factors, the jury is asked to determine whether the product is reasonably safe. Nevertheless, there are cases which appear to approach a system of absolute liability. Some appellate courts do not view product liability law as a means of apportioning responsibility between parties, but as a compensation system. These courts come very close to holding that the tort-litigation system should provide a recovery for persons who prove that they were injured by a product. These courts believe that the defendant is in a better position to "distribute the cost of the risk" than the plaintiff is to bear it.

While these cases appear to be relatively few in number, insurers have regarded them as quite important in their pricing practices. As the Briefing Report observed, insurance company ratemaking is an area where "perceptions of reality become as important as reality itself..." Briefing Report at p. 14.

Even if insurer ratemaking practices were substantially improved, the spectre of these cases could still serve as an arguable justification for increasing premiums. If one state

court reaches a decision of this type, others could follow in the future. It is almost impossible to predict when courts will change product liability rules and broaden the exposure of insureds.

The instability in product liability law has increased costs apart from verdicts and settlements. It has created a climate where it may be rational for a plaintiff's lawyer to bring a case although existing rules suggest that it cannot be won. It apparently has increased defense and investigation costs. Preliminary data from the Insurance Services Office indicated that for every dollar paid to a claimant, an additional \$.42¹⁵ is expended in defense and other loss adjustment procedures.

Individual state modifications of the tort system may not alleviate this problem. Unlike medical malpractice, attorney malpractice and municipal liability problems, product liability is nationwide in scope. This is because most products are distributed in a broad number of jurisdictions. Thus, product liability insurance rates are made on a nationwide, not a local, basis. Where product liability insurance costs are passed on in the price of a product, consumers in some jurisdictions may pay for legal interpretations that are rendered in others.

Among the primary areas of uncertainty in basic product liability laws are the rules relating to the responsibility of the manufacturer in designing his product and warning about hazards connected with that product. As a practical matter, there is no way a manufacturer can always know "in advance" whether he has designed his product properly or given proper warnings about hazards connected with the product. Also, in most situations there is no strict cut-off point where a manufacturer is no longer subject to liability for an injury caused by a product. Rules are also in flux in regard to the responsibility a product user should bear for his own misconduct.

We have concluded that this cause of the product liability problem can only be addressed by a careful review of product liability law as a whole. One must re-examine the basic standard of responsibility for product users and product liability defendants. One must also examine rules relating to damages and how costs are allocated among multiple defendants. It is also

important to discern whether no-fault compensation systems can be utilized in the product liability field. These systems have the potential of providing a means of compensating victims of product-related injuries while reducing overall transaction costs that arise out of such payments. Finally, there is a need to explore suggestions that the product liability injury that occurs in the workplace might be handled differently from consumer product injuries. In Chapter VII, we address these topics and suggest ways in which this cause of the product liability problem might be reduced or eliminated.

Other Causes

There are a number of other causes of the product liability problem that this report does not specifically address. These causes do not appear to be as significant as those identified above. The causes include:

- (1) Inflation. When a product liability claim is made for loss of wages and medical costs in 1976, it will be higher than a similar claim made in 1970 because of inflation. Also, legal defense and investigation costs have increased in this period. There are no data available that suggest whether the average product liability judgment has risen at a rate that is higher than inflation over the past five years. Some limited surveys suggest that this may be true. We do know that the cost of liability insurance for many companies has risen at a rate that is substantially higher than inflation for the years 1974 through 1976. The causes of and cures for inflation go beyond the scope of this report.
- (2) Consumer and Worker Awareness. Anecdotal data suggest that both consumers and workers are now more aware of their right to bring a product liability suit than they were ten years ago. In that connection, some of the increases in the number of claims may relate to injuries from defective products that would not have resulted in lawsuits in the past. This is one possible explanation of the apparent increase in the number of product liability claims.

No one has suggested that a solution to the product liability problem is to make consumers or workers less aware of their rights. On the other hand, some have asserted that the situation has resulted in some attorneys "playing upon" consumer awareness. It is alleged that the result is that frivolous claims are brought. We discuss proposed remedies that may thwart the bringing of frivolous claims in Chapter VII at p. 62.

- (3) Increases in the Number and Complexity of Products. Anecdotal data suggest that in some product lines there has been an increase in both the number and complexity of items manufactured. Obviously, this will result, in the long run, in an increase in the number of product liability claims. We have been unable to quantify this cause of the product liability problem, and no one has suggested a remedy for it. It would seem, however, that continued emphasis on product liability loss prevention may serve as a counterweight to this particular cause of the product liability problem.
- (4) Product Misuse. According to a recent survey of large product liability claims by the Alliance of American Insurers, misuse and alteration of products by product users is an important causal factor in product-related accidents. This survey was based upon very limited data;¹⁶ nevertheless, our Legal Study's review of case law reflects that product misuse is a factor in bringing about product-related injuries. Even where a manufacturer makes a reasonable attempt to instruct users about dangers connected with products, instructions are sometimes ignored or unforeseeably misinterpreted.

The insurer and manufacturer groups that have brought this matter to our attention suggest that the problem of unreasonable product misuse be dealt with by barring or limiting a plaintiff's claim. See Chapter VII at p. 37. Of course, there is no assurance that these approaches would prevent unreasonable product misuse. One means whereby this cause might be addressed is through

continued consumer education by manufacturers, insurers and government. Nevertheless, in the time allotted for our study, we have not developed specific means whereby this education could be increased or made more effective.

NOTES TO CHAPTER I

¹See Statement of Mavis A. Walters before the Subcommittee on Capital, Investment and Business Opportunities of the House Committee on Small Business (June 6, 1977).

²Briefing Report, Interagency Task Force on Product Liability Technical (Department of Commerce, 1/4/77). Published by the National Technical Information Service, 5285 Port Street Royal Road, Springfield, Virginia 22161 (Attention: Sales Desk). When ordering reports reference should be made to the appropriate accession number, and a check in the proper amount (made out to NTIS) should be enclosed. The Briefing Report Accession Number is 262 515 and its price is \$4.50.

³Initially eight product lines were selected. The industry contractor, with the approval of the Task Force, added a ninth, power lawnmowers.

⁴The Working Task Force member from the Department of Labor has pointed out that health-related product liability problems may grow as more knowledge is gained about the etiology of diseases, both those that are occupationally related and those that are affected by environmental problems.

⁵The papers from that symposium will be published in a supplement to this report.

⁶Transcripts of the meetings are available at the Department of Commerce.

⁷Copies of the reports may be obtained from NTIS. For general information on ordering reports see note 2, supra. Legal Study: Accession Number P.B. 263-601, price \$31.25. A one-volume Executive Summary has also been published: P.B. 265-450, price \$6.00.

⁸Accession Number P.B. 263-600, price \$9.00 (The address for ordering is listed in Note 2, supra).

⁹Undertaken by the Alliance of American Insurers.

¹⁰Accession Number P.B. 265-542, price \$21.25 (The address for ordering is listed in Note 2, supra).

¹¹Letter from Royce L. Lowry, Clearance Officer, Office of Management and Budget, to Mr. Robert P. Jordan, Clearance Officer, Department of Commerce (11/3/76).

¹²Large (a) rated classifications are those for which insufficient data are reported to calculate a rate through actuarial techniques.

¹³73% of bodily injury and 83% of property damage claims are settled without lawsuit, representing 7% and 33% respectively of payments made.

¹⁴Reported losses in the insurance industry are often statutory underwriting losses. There is a distinction between statutory underwriting losses and overall underwriting losses. This distinction is developed in Chapter V at p. 37.

¹⁵The Task Force staff has been informed by a representative of the Insurance Services Office that the Final Closed Claim Survey will show this figure to be \$.35.

¹⁶Seventy-nine cases studied where a claim was in excess of \$100,000.

Chapter II

Product Liability — A Legal Framework

INTRODUCTION

This chapter has two principal parts. Part I is derived from our Legal Study's description of some of the more significant aspects of current product liability law. It is by no means a complete picture: it would take several volumes to even begin to accomplish that goal. Rather, its purpose is to present an overview of what the Task Force found to be one of the causes of the product liability problem - the current tort-litigation system.

We have selected five specific areas of product liability law for discussion in this chapter. They were selected on the basis of information gleaned from our Working Task Force Symposium, letters to the Task Force and independent research by the Task Force staff. Aside from presenting a picture of five important areas of product liability law, these topic areas also serve as a resource for discussion of some of the remedial proposals set forth in Chapter VII.

Thus, the first topic area, a defendant's duty to design its product properly, and the second topic area, a defendant's duty to warn users or consumers about hazards connected with the product, serve as a resource for our remedy discussions of the basic standard of responsibility in product liability cases, p. VII-14, modification of rules relating to the age of products, p. VII-20, a duty limitation for unavoidably unsafe products, p. VII-29 and the development of predictable legal standards for product liability cases, p. VII-33. The third topic area, the burden on the user or consumer -- how his conduct will affect his claims -- serves as a basis for our discussion of remedies relating to the problem of product misuse, p. VII-47 and the problem of plaintiff's contributory fault or assumption of risk at p. VII-51.

The fourth topic area, the defendant's ability to apportion risk and the fifth, product liability law in the workplace, are reservoirs for our remedy discussions concerning modifications of product liability law relating to a defendant's right against third parties -- the problem of the workplace injury at p. VII-85.

Part II of this chapter sets forth our legal contractor's review of product liability data that have been derived directly from the legal system. The first section describes what could be found about product liability claims and settlements from legal resources. This includes a description of data compiled by the Director of the Administrative Office of the United States Courts, by the Judicial Department of the State of Connecticut (the only state to collect and report data specifically on product liability cases), the Illinois Jury Report Survey and the Kansas Trial Lawyers' Association survey of product liability cases tried in Kansas City from 1967-1975.

The second portion of this section sets forth the results of a product liability survey undertaken by our legal contractor. The contractor surveyed 655 appellate cases from eight representative states. The basis for the selection of those states is set forth on p. 47.

While appellate cases do not necessarily reflect what transpires at the trial level, both plaintiff and defendant attorneys at our Working Task Force Symposium advised us that product liability appellate cases are more representative of "what goes on" at the trial level than in other areas of the law. This is because product liability law is still in flux and there is more likely to be an appeal when verdicts are substantial. We have utilized these data, albeit cautiously, in Chapter VI where we set forth our ultimate findings and in Chapter VII where we discuss remedies. We have presented it here so that others may make additional use of it.

We did not have the resources or time to survey product liability cases at the trial court level. We have been advised that such an undertaking would be complicated and very costly, since most trial courts do not separate "product liability" cases from other general liability cases.

As other portions of the report show, however, we have been able to glean some picture of what is "happening" at the trial court level. This was accomplished by our industrial contractor's survey of the claims experience of 337 corporations. We were also able to obtain some picture of claims at the trial court level from surveys undertaken by 20 trade associations,

insurance groups and others. The trade association surveys are set forth in Chapter III and the insurance group surveys including the Insurance Services Office's preliminary closed claim survey are discussed in Chapter V.

AN OVERVIEW OF PRODUCT LIABILITY LAW

Introduction

As one reviews the product liability cases from the past two decades, it is clear that courts did not intend to create a product liability problem. Rather, they were attempting to weed the law of antiquated doctrine or stumbling blocks that appeared to deprive injured plaintiffs of their right to recover against manufacturers of defective products. For many decades an injured consumer was, in theory, entitled to damages when the product that injured him was negligently manufactured. Often, however, the plaintiff was unable to show that the defendant failed to act as a reasonable manufacturer, or he was barred because he was contributorily negligent with respect to the product. Sometimes his claim failed because he was unable to reach the manufacturer of the product by judicial process. Instead, he was only able to sue the retailer or distributor of the product and was unable to prove negligence against those parties.

An alternative approach to negligence was the law of warranty. Here plaintiff only had to show that the product was unreasonably constructed or designed in regard to its intended use. But in cases other than those dealing with foods or cosmetic preparations, the courts usually required that the plaintiff be in privity of contract with the defendant. Therefore, if a non-purchaser was injured, his claim had to be based on negligence. The privity requirement was so important that it was commonly referred to as a "citadel."

"The Fall of the Citadel," according to the late Dean Prosser,¹ occurred on May 9, 1960, when the Supreme Court of New Jersey announced the decision in Henningsen v. Bloomfield Motors, Inc.² The Henningsen court held the manufacturer and dealer of a defective automobile liable for a breach of implied warranty without any showing of negligence and without privity of contract. The basis of the decision was that when a seller

places a defective product into the stream of commerce, the loss should fall on that seller, who is in a position to control the danger and to distribute the losses equitably, rather than on the innocent plaintiff, who cannot control the danger and who has less ability to distribute the loss.

Greenman v. Yuba Power Products, Inc.,³ a 1963 decision of the Supreme Court of California, represents the next significant development in the evolution of a cause of action other than negligence in product liability cases. While Henningsen was based on the contractual theory of breach of implied warranty, the Greenman decision rested in tort--the cause of action was one of strict tort liability. Thus, although the rationale of the Greenman decision was congruent with that of Henningsen, the theory of recovery differed.

The court in Greenman recognized what had occurred in a long series of cases that ended with Henningsen. A doctrine that had in the twentieth century been associated with contracts (warranty) was being utilized to create a new cause of action in tort. The Greenman court, by identifying the true legal basis for the cause of action, hoped to bring more rationality to the system. For example, by labeling the product liability claim one of tort rather than warranty, technical requirements (such as the commercial code's requiring that a notice to a seller be supplied within a reasonable time after the buyer discovers a defect) could be avoided when they were inappropriate.

Henningsen and Greenman were important building blocks in establishing a new cause of action in product liability cases. Under the reasoning of these decisions, the plaintiff was no longer required to prove negligence on the part of the manufacturer or seller in order to recover for injuries arising through the use of a defective product. Instead, the focus was shifted from the conduct of the manufacturer to the performance of its product. If the product proved to be defective, then the parties responsible for placing the product into the stream of commerce were liable to the plaintiff for the injuries caused by the product.

Over time most courts extended the rationale of these cases to both retailers and distributors. It would appear that strict

liability may strike at these groups more harshly than manufacturers: retailers and distributors are often in a situation where they have neither the ability nor the opportunity to discover or correct defects in a product. In point of fact, case law suggests that retailers and distributors are usually able to transfer the cost of a product liability judgment back on to the manufacturer. Nevertheless, it has been reported to the Task Force that these groups are still subject to substantial defense costs. Courts extended strict liability to retailers and distributors, in part, on the assumption that those groups would place pressure on the manufacturer to produce safe products. Courts also believed that retailers and distributors might be more accessible to suit than manufacturers.

Although the Henningsen, Greenman and other early strict product liability cases dealt with consumer goods, courts soon applied the same theory to workplace injuries. Some have argued that there was less need to have strict liability with respect to product-related workplace injuries. The basis for this argument is that the injured worker often has recovered medical costs and a percentage of his loss of earnings through Worker Compensation, whereas the consumer (unless successful in a product liability action) has often obtained no compensation whatsoever.

The protection established by Henningsen and Greenman was also extended beyond users and consumers of products to all persons who might foreseeably be injured if a product misfired.

Finally, the Henningsen and Greenman cases (which dealt with injury to the person) were extended to situations where there had been property damage. To date, most courts have drawn the line at that point and decline to apply strict liability in tort where there has been pure economic loss.

As far back as 1965 with the promulgation of Section 402A of the Restatement (Second) of Torts, it was hoped that reasonably uniform standards might evolve for strict product liability law. Nevertheless, these hopes have not borne fruit. To illustrate this fact we will examine some of the more important doctrinal areas where diversity of view has arisen. A common theme in each of these areas is a difference in perspective (identified in the Task Force's Briefing Report) between courts who view product

liability law as a means of apportioning responsibility based on fault and those who assume that this area of law should be a compensation system for persons injured by products. See Briefing Report at p. 13.

Some Major Issues in Product Liability Law

A Manufacturer's Duty to Design Its Product Properly

Introduction

While most courts agree that the duty of the manufacturer is to design a product that is not "defective," no satisfactory definition of the term "defect" has been articulated. Michael Hoenig has recently remarked, in fact, that "[w]hat constitutes a defect is no clearer today than it was a decade ago when Section 402A of the Restatement (Second) of Torts was published."¹⁰ The term is particularly difficult to define in connection with cases where the alleged defect is one of design. On the one hand, in cases involving manufacturing defects, the plaintiff need merely illustrate that the performance of the product was deficient; on the other hand, in cases involving alleged design defects, the plaintiff must impugn a conscious design choice of the manufacturer. Courts have had problems in both defining and applying the so-called strict liability standard where plaintiff has alleged that a design was defective.

Defectiveness and Strict Liability

In the 1963 case of Greenman vs. Yuba Power Products, Inc.,¹¹ where the underlying rationale of strict liability was set forth by Justice Traynor of the Supreme Court of California, it was held that a manufacturer is strictly liable when its product "proves to have a defect that causes injury to a human being."¹² The Greenman court did not undertake, however, to define the meaning of defect. In 1965, when the Restatement (Second) of Torts was published, it was postulated in Section 402A that one who sells any product in a "defective condition unreasonably dangerous" is subject to liability for physical harm caused by the product, even though the seller exercised all possible care in preparing and selling the product. Thus, notwithstanding the fact that the court in the Greenman case held the manufacturer

liable for any product which proved to have a "defect," the Restatement used the differently-worded standard of a "defective condition unreasonably dangerous."

The term "unreasonably dangerous" generated little discussion in the years immediately after the inception of Section 402A. Those courts, including the Supreme Court of California, which applied the strict liability doctrine, often spoke of the Greenman standard and Section 402A as basically synonymous.¹³ It was not until the decision of the Supreme Court of California, in Cronin v. J.B.E. Olson Corp.,¹⁴ that a controversy was created. The Cronin case attempted to analyze the two standards and found the Greenman formula to be preferable because the "unreasonably dangerous" element had the effect of introducing negligence-related considerations into a strict liability case. The court held that the plaintiff need not show a product to be "unreasonably dangerous" in order to recover on a strict liability theory.

The approach advocated by the Cronin court--allowing the issue of defect to be decided in an "intuitive" manner--has created great confusion and has met with widespread resistance. For example, this approach has been compared to instructing the jury in a negligence case that the defendant is liable if he breached a duty owed to the plaintiff, without defining the duty as that of reasonable care.¹⁵ Many courts have expressed a preference for the Restatement formula as opposed to that adopted in California.¹⁶ Other courts, however, for various reasons, have rejected the "unreasonably dangerous" standard in favor of a different test. Substitutions for the "unreasonably dangerous" test include the imposition of liability in Washington if the product is "not reasonably safe"¹⁷ or, in Oregon, if the product is "dangerously defective."¹⁸ Still another view is that the term "defective" is synonymous with "unreasonably dangerous."¹⁹

Many states, of course, continue to adhere to Section 402A.²⁰ Others recognize Section 402A but adapt it to reflect principles established in the state law. Wisconsin, for example, purports to recognize Section 402A but holds that the Section 402A standard is the equivalent of negligence per se.²¹ New York has established a negligence-based cause of action entitled "strict products liability," which states the ingredients for liability

and the applicable defenses in one three-pronged formula.²² The formula provides that the manufacturer of a defective product which causes injury is liable if (1) the product was being used for its intended purpose--this also includes foreseeable misuses;²³ (2) the user would not, by the exercise of reasonable care, have discovered the defect and perceived its danger; and (3) the person injured could not, by the exercise of reasonable care, have averted the injury. A majority of the judges on the New York Court of Appeals have recently reaffirmed their preference for the New York rule, which recognizes the defense of contributory negligence in a strict liability action, as opposed to the standard enunciated in Section 402A.²⁴

This wide disparity surrounding both the definition of defect and the most desirable form of strict liability has led to substantial confusion and unequal treatment of products cases in state courts.

Strict Liability in Design Cases

The process of applying strict liability in design defect cases is somewhat different from that in manufacturing defect cases. Inasmuch as strict liability was initiated to alleviate problems of the plaintiff's burden of proof, it is clear that the theory works reasonably well in manufacturing defect cases where the defect was in the construction of the product. In design defect cases, on the other hand, the alleged defective design is the result of a conscious choice of the manufacturer to design its product in a certain manner. Thus, although strict liability shifts the focus from the conduct of the manufacturer to the performance of the product, the way in which the product was designed resulted from a conscious human choice. Consequently, some courts have pointed out that the results in design cases seldom differ, whether the cause of action is one of negligence or of strict liability.²⁵

Dean Wade has pointed out that the difference between negligence and strict liability in design defect cases should be that the element of scienter--knowledge of the risks created by a product--is imputed to the manufacturer when strict liability is applied.²⁶ Yet, even when the negligence standard of reasonable care is imposed, the manufacturer is still obligated to assume

the position of an expert in the field and to keep abreast of the most recent scientific developments in the industry.²⁷ Under this standard, the negligence test of whether the manufacturer knew or should have known of the dangers is only slightly less demanding than the strict liability technique of imputation of knowledge of the dangers. As Dean Keeton has observed, "strict liability as to design defects is virtually a myth," unless knowledge of scientifically unknowable risks²⁸ is imputed to manufacturers when strict liability is applied. Because most courts have refused to impute knowledge of unknowable risks to manufacturers,²⁹ negligence and strict liability are functional equivalents in design defect cases in most states.

To determine whether a product is defectively designed, the risks presented by the product must be weighed against its utility. A product which presents substantial risks is not necessarily defective, as it may also have great utility. In balancing the risks and utility of the product, one of the most comprehensive lists of factors to be considered has been proposed by Dean Wade,³¹ and has been adopted by courts in Oregon³⁰ and Arizona³¹ as well as the Federal District Court for the Eastern District of Pennsylvania.³² Under this test, the factors to be considered are:

- (1) The usefulness and desirability of the product--its utility to the user and to the public as a whole.
- (2) The safety aspects of the product--the likelihood that it will cause injury, and the probable seriousness of the injury.
- (3) The availability of a substitute product which would meet the same need and not be as unsafe.
- (4) The manufacturer's ability to eliminate the unsafe character of the product without impairing its usefulness or making it too expensive to maintain its utility.
- (5) The user's ability to avoid danger by the exercise of care in the use of the product.

- (6) The user's anticipated awareness of the dangers inherent in the product and their avoidability, because of general public knowledge of the obvious condition of the product, or of the existence of suitable warnings or instructions.
- (7) The feasibility, on the part of the manufacturer, of spreading the loss by setting the price of the product or carrying liability insurance.³³

The User's Conception of the Product

One of the most important factors that some courts have considered in the test of defectiveness in design cases is the sixth factor enumerated by Dean Wade--the user's anticipated awareness of the dangers in the product. The Restatement definition of "unreasonably dangerous" is that "the article sold must be dangerous to an extent beyond that which would be contemplated by the ordinary consumer. . . ." ³⁴ Following the Restatement, a number of courts have adopted, as the sole test of defectiveness, the test of whether the product was dangerous to an extent beyond that contemplated by the ordinary consumer. ³⁵ Other courts, however, have advocated its use only in conjunction with the other balancing factors. ³⁶

Related to the consumer's expectations of the product is the open and obvious nature of the danger. It had long been the majority rule that the open and obvious nature of the dangerous condition barred recovery because the manufacturer of the product had no duty to guard against, or to warn of the dangers of, an obviously dangerous condition. ³⁷ Although many courts continue to adhere to this view, the "open and obvious" bar has become subject to increasing criticism over the years, and an increasing number of courts have repudiated its rigidity. ³⁸ There may be a limited number of situations where a manufacturer can easily correct or warn about an obvious danger without in any way impairing the utility of the product; the obvious risk may not be an inherent one. The New York Court of Appeals has, in fact, recently overruled the case of Campo v. Scofield, ³⁹ which had been the leading case in support of the "open and obvious" rule. Thus, the majority view is now that the open and obvious nature

of the danger is only one factor to be considered in conducting the balancing test of defectiveness.

The open and obvious danger, however, should be contrasted with the commonly known danger. In the latter situation, the danger of the product may be such common knowledge that the product cannot be considered to be defective. "Although a knife qualifies as an obviously dangerous instrumentality," for example, "a manufacturer need not guard against the danger that it presents."⁴⁰ This type of hazard is an inherent risk of the product; it is also one that all reasonable persons would be aware of in the course of using the product.

The Manufacturer's Ability to Make the Product Safer

Another of the most important considerations in Dean Wade's formulation of the test for defectiveness is the fourth--the manufacturer's ability, within practical and technological limits, to improve the safety of the product. The availability of possible alternative designs and matters relating to industry custom relate to the "state-of-the-art" issue. While the custom of the industry is important in determining whether the product is unreasonably dangerous, the position that conformance with industry custom is not an absolute defense is a virtually unanimous view, as many courts have realized that an entire industry may have been at fault in not improving its techniques.⁴¹ Illinois is the one state which holds that evidence of industry custom is immaterial in a strict liability suit,⁴² and that the matter of whether a safer design was feasible at the time that the product⁴³ was marketed is also immaterial for strict liability purposes.

The "state of the art" problem is particularly troublesome in regard to product-related injuries which are incurred through the use of older products. Manufacturers have complained that liability has been imposed in such cases, even where the product has been used for prolonged periods, passed through several owners' hands and modified in varying degrees, including removal of some safety features. Nevertheless, our legal contractor's examination of the case law reflects that most courts refused to impose liability where the evidence indicated that the accident⁴⁴ in question was caused by normal wear and tear of the product.

In order to reach the jury, the plaintiff must introduce sufficient evidence to justify the drawing of an inference that the defect existed when the product left the hands of the manufacturer. Where the evidence merely illustrates that an accident happened after years of prolonged use, and possible misuse, of the product, and there is no evidence from which to conclude that the product was defective at the time of sale, judgment will usually be entered for the manufacturer.⁴⁵ Nevertheless, there often is a conflict in the evidence and the matter is left to the jury to decide. See VII-34.

Conclusion

While the balancing approach is a conceptually sound technique to apply in deciding design issues, it is by no means an easy test, whether the factors involved are weighed by the judge or by the jury. Due to the complexities involved in the process, a return to negligence law has been advocated as one means of minimizing the uncertainty in design cases.⁴⁶ Professor Henderson contends that design cases are "polycentric" to the extent that they should not be judicially resolved at all.⁴⁷ Professor Twerski and his colleagues disagree.⁴⁸ With such diversity of opinion, a uniform approach to design cases does not seem close at hand. Nevertheless, the distinction between "strict liability" and "negligence" in product liability is often more one of language, than actual results. The time may have arrived to make the law clear as to what is required in regard to the manufacturer's duty to design. At p. VII-13, some suggestions are made as to how this might be accomplished.

The Manufacturer's Duty To Warn Users or Consumers About Hazards Connected With Its Product

Introduction

A manufacturer has a duty to warn purchasers and users of its product of the dangers associated with the use of that product. Liability for failure to give such warning may be predicated on negligence,⁴⁹ strict liability in tort,⁵⁰ and even breach of warranty.⁵¹ The doctrine has wide applicability and it has recently been observed that "almost every product liability case has a potential issue of failure to warn."⁵²

The frequency with which plaintiffs use failure to warn as a basis for asserting that manufacturers should be held liable for injuries which result from the use of their products stems from two major factors. The most important is that courts commonly require no additional showing, either of fault on the part of the manufacturer or of a defect in the product, in order to allow a plaintiff to recover for injuries which occurred because of the absence of a proper warning.⁵³ As a result, plaintiffs in product litigation often rely on an alleged failure to warn in order to avoid the proof problems involved in⁵⁴ demonstrating the existence of manufacturing or design defects.

Even in situations where other kinds of defects are alleged, plaintiffs frequently rely on manufacturers' failures to warn as an alternative ground for claiming damages. There is a particular logical nexus, for example, between a manufacturer's duty to design a product which is safe for ordinary use and its duty to warn of the dangers of a product which has not been--or even cannot be--designed to be completely safe. Where, however, the manufacturer does in fact provide an adequate warning, it will sometimes insulate him from liability for harm caused by what would otherwise be a design defect.⁵⁵ Where the testing processes of the manufacturer are inadequate, on the other hand, courts have usually imposed liability on the failure to warn⁵⁶ rather than on the failure to test the product adequately.

Theories of Recovery

Despite the extensive litigation surrounding the duty to warn, there is nevertheless much confusion as to the doctrinal underpinnings of the duty. Primarily, there is strong disagreement as to whether the three possible legal theories of recovery provide distinct tests for determining the existence or discharge of the duty. In the early decisions following the promulgation of Section 402A of the Restatement (Second) of Torts, the courts usually concluded that the three theories provided identical standards for determining whether the duty to warn existed, and whether it was discharged in a particular case. In some of these cases, courts have explicitly stated their belief in the identity of two or more of the three theories.⁵⁷ Under this view, it is said that the test under any theory is whether the manufacturer "adequately warned of known or

reasonably foreseeable" dangers involved in the use of his product.⁵⁸ In other cases courts have used the negligence standards of the Restatement (Second) of Torts Section 388 and the strict liability standards of Section 402A interchangeably in duty to warn contexts and thus implicitly have not recognized any major difference in the standards. In one case, for example, it was held that Sections 388 and 402A were "consistent," the strict liability test being that a product is "unreasonably dangerous" if the manufacturer⁵⁹ failed to give a warning "reasonable under the circumstances."⁵⁹ Another court used the "unreasonably dangerous" standard of Section 402A to determine a manufacturer's liability for negligence.⁶⁰

In contrast to these holdings that the three theories of liability are identical in duty to warn cases is a growing trend of decisions in which courts have held that the theories provide distinct criteria for analyzing the duty. These cases hold that the distinction between strict liability and negligence is that strict liability focuses on the condition of the product which is sold without a warning, while negligence relates to the reasonableness of the manufacturer's actions in selling the product without a warning.⁶¹ However, these courts do inject some elements of negligence into the strict liability test. The strict liability test in determining whether a product is unreasonably dangerous is to:

assume the seller knew of the product's propensity to injure as it did, and then to ask whether, with such knowledge, he would⁶² have been negligent in selling it without a warning.

The confusion between the two approaches may be attributed to two concrete causes. Part of the problem stems from the language of two comments to Section 402A. Comment j requires that, for a manufacturer to avoid strict liability for the allergic reactions which some users may have to its product, it must warn of the possibility of the reaction if it "has knowledge, or by the application of reasonable human skill and foresight should have knowledge"⁶³ of the presence of the allergenic ingredient and the danger.⁶³ Comment h requires the seller to warn of dangers which may result from a particular use of its product, where it "has reason to anticipate that danger may result" from the particular

use.⁶⁴ Both comments place the emphasis on the seller's knowledge of the dangers that exist, rather than on the dangerous properties of the product itself.

Nevertheless, it is clear that the major source of the confusion is a conceptual one. The tests as to whether a product is unreasonably dangerous without an adequate warning or whether a manufacturer is negligent in failing to provide a warning both involve a consideration of the danger the product presented to the unwarned public at the time the product was placed on the market. Since under negligence principles, the manufacturer is held to the standard of an expert in the field, there is no significant difference between negligence and strict liability unless manufacturers are held liable for failing to warn of risks which were unknowable or unforeseeable when the product was marketed. In decisions studied by our legal contractor, courts held the manufacturer responsible only for risks known at the time of marketing.⁶⁵ Consequently, under the present state of the law in most states, negligence and strict liability in warning cases appear to be functional equivalents.

Factual Considerations

Even though the legal theories upon which particular cases have been brought may differ, and even though these theories may be theoretically quite distinct, courts appear to utilize a uniform list of factors in their analysis of failure to warn problems, regardless of the ground upon which these problems are raised. While some of these factors are common to other types of product liability cases--especially design cases--others are unique to failure to warn situations.

Most courts agree that the seriousness of the harm which may result from the use of the product is the overriding concern in determining whether a duty to warn exists. Thus, the dangers which are involved in the use of drugs,⁶⁶ dynamite paraphernalia,⁶⁷ and certain products used in close connection with children, such as vaporizers,⁶⁸ will usually require that a warning be given. In contrast, where the degree of potential harm is not so great, such as the injury which befalls the hypersensitive user of hair products,⁶⁹ a warning will be required less often. However, courts generally require that the

serious nature of the potential harm be foreseeable before they will insist on a warning.⁷⁰ Usually, this is considered a matter for the jury to decide.⁷¹ This creates almost total uncertainty for a manufacturer. Our legal contractor found only one major decision where a court has held that an injury which results from an unintended use is unforeseeable as a matter of law.⁷²

The probability of the harm which may result from the use of the product is another factor considered by courts in determining whether an adequate warning has been given. Generally, if the probability of harm is small, the duty to warn will be held to exist only with respect to the most serious harms.⁷³ The concept of "probability of harm" may have a different meaning, however, depending on the factual situation to which it is being applied. On the one hand, courts use the concept to describe the probability that a user will suffer injury in the absence of the warning. This application includes cases where the warning concerns the allergenic properties of the product,⁷⁴ as well as those where dangers result from improper use of the product.⁷⁵ Clearly in these cases, the provision of the warning will be instrumental in reducing the probability of injury in the use of the product.

On the other hand, courts also consider the probability of injury in the use of the product, irrespective of whether the warning is given. Cases in which this probability has been considered include those involving the polio vaccine,⁷⁶ as well as those which deal with warnings as to idiosyncratic allergic reactions from the product, where the user has no way of determining his hypersensitivity prior to exposure to the product.⁷⁷ The probability of harm is significant in this group of cases, not because the warning will reduce the number of injuries, but because it is felt that users of the product should have the opportunity to weigh for themselves the risks inherent in the use of the product against the benefits to be obtained from the product.⁷⁸

A corollary to the probability of harm factor is the user's knowledge of the harm which may result from the use of a product. Some courts⁷⁹ hold that there is no duty to warn of dangers which are obvious. Almost all courts agree, on the other hand, that there is no duty to warn where the danger is generally known.⁸⁰

Under comment j to Section 402A, strict liability will not be imposed where the danger or potential for danger is "generally known and recognized."

The situation sometimes arises where the general danger of a product is obvious or generally known but the specific danger is not so apparent. In this type of case courts seem to use two approaches. Some courts merely state that the "obviousness" of a danger refers⁸¹ to the specific risk which resulted in the injury which occurred.

Other courts use a foreseeability standard, holding that if it is foreseeable that a person would not appreciate the risk involved in a product's use, then its danger was not an obvious one.⁸² Under either standard, the issue of the obviousness of the danger is generally sent to the jury.⁸³

Foreseeability of misuse is a very elastic concept and courts may use a bit of "hindsight" in some cases. Thus, one court has held that it was foreseeable that a person would pour alcohol-based perfume onto a candle in order to scent it, and therefore held the manufacturer liable for failing to warn of the perfume's flammability.⁸⁴ Nevertheless, the manufacturer could show that nothing similar had occurred in over twenty-five years the product had been on the market. Other courts take a more restrictive view of foreseeability, and might have held for the manufacturer in that case.

Another recurring issue in duty to warn cases is the matter of to whom the warning must be given. Under the Restatement, a manufacturer will be liable to users of his product, even though they obtained the product through third parties.⁸⁵ This rule is applicable under either a negligence⁸⁶ or a strict liability⁸⁷ theory of recovery. The question often arises whether a warning to the third party of the product's dangers is sufficient to discharge the manufacturer's duty to the user. To answer this question, it becomes essential to identify the "position of the supplier in the distributive structure."⁸⁸

Generally, where a manufacturer sells its product in bulk to a distributor, who then packages the article for retail sales, the manufacturer will discharge its duty with a warning to the

distributor. The distributor will then be reasonably expected to pass the warning on to the ultimate purchaser or user.⁸⁹ So also will the duty be discharged by a warning to a purchaser who is a professional under whom the ultimate user will work.⁹⁰ Similarly, it is well settled that the duty to warn users of prescription drugs is normally fulfilled by the manufacturer's communication to the prescribing physician by way of package inserts, letters,⁹¹ and occasionally detail men.⁹² However, the rule is not absolute, and where, for example, the widespread distribution of a defendant's oral polio vaccine was through mass clinics, it was held that the warning must be given⁹³ in advertising which would reach the potential users directly.

While most of the factors that courts consider in evaluating the scope and discharge of the duty to warn are grounded in the nature of the product itself, courts sometimes also look to other statements made by sellers about their product. Courts will frequently find, for example, that there is a higher standard by which to judge the duty to warn where the manufacturer has made representations of the safety of its product.⁹⁴ Section 402B of the Restatement (Second) of Torts holds the manufacturer strictly liable for the misrepresentation where the consumer has justifiably relied on it, even though the manufacturer was not negligent. Thus, it has been held that, even though a plaintiff's idiosyncratic addiction to defendant's drug could not possibly have been foreseen, the manufacturer, by representing the drug as nonaddictive, could nevertheless be held liable under Section 402B.⁹⁵

Conclusion

Despite the growing reliance on the failure to warn as a basis for imposing liability on manufacturers for injuries which result from the use of their products, confusion still reigns as to the theoretical basis of this liability. While courts attempt to distinguish liability based on negligence from strict liability in the failure to warn area, the factors at play under either theory remain the same. Thus, the more serious the harm, the greater the probability of the harm and the less obvious the danger, the greater the likelihood that courts will require the manufacturer to warn of the hazards involved in the use of his product.

But there can be little doubt that strict liability has given courts latitude to shift the balance among these factors and occasionally allow juries to reach decisions that can be justified only by the application of hindsight. Remedial proposals that address this problem are discussed in Chapter VII of this report.

How Does the Conduct of the Product User or Consumer Affect His Claim?

Introduction

Product liability actions which are based on negligence have traditionally been subject to the defenses of assumption of risk and contributory negligence. These types of conduct are generally treated as affirmative defenses, and the burden of establishing them rests with the defendant.⁹⁶ The distinction between the two is that assumption of risk concerns knowledge of the danger and acquiescence in it, while contributory negligence involves⁹⁷ a departure from the standard of conduct of a reasonable person.

As has been indicated in the previous section, it has been held that a manufacturer may be relieved of liability for injury caused by a dangerous product if the danger it presented was patent or⁹⁸ obvious, or should have been obvious, to the plaintiff. The rationale for the patent danger rule is that a manufacturer is under no duty to guard against injury from a source which is manifestly dangerous. Because a determination of the question of duty is usually a matter for the court, rather than the jury, a finding that the defect was an obvious one will usually result in a directed verdict for the defendant. Not all jurisdictions recognize the patent danger rule, and a trend toward its abolition may be indicated by its abandonment in New York,⁹⁹ a jurisdiction which was formerly a leading exponent of the rule.

Another situation in which the defendant in a negligence-based product action may be excused is where the plaintiff has used the product in a manner which was unintended by the manufacturer. This type of conduct is usually characterized as misuse or abnormal use.

With the widespread acceptance of strict liability as a theory of recovery for injuries caused by defective products, interest has focused on how a plaintiff's conduct will affect an action brought under that theory. Section 402A of the Restatement (Second) of Torts, which many courts accept as the basis for strict liability, considers defenses based on the plaintiff's conduct in Comment n. The Restatement position is that assumption of risk on the part of the plaintiff is a good defense in a strict liability action. However, conventional contributory negligence, in the sense of a failure to discover the danger presented by a product, or a failure to avoid injury by the product, is not considered a defense.

In addition, the defense of misuse of the product is recognized in Comment h to Section 402A. Misuse of a product defeats the plaintiff's contention that a product was defective, or that the alleged defect caused the plaintiff's injury. Since these are elements of the plaintiff's case, misuse is not usually regarded as an affirmative defense. The existence of misuse¹⁰⁰ merely rebuts an essential element of the plaintiff's case.

The patent danger rule has also been applied to strict liability actions.¹⁰¹ In some instances, it has been applied where the plaintiff's conduct amounts to nothing more than a negligent failure to discover a defective condition.

A recent development with which courts have been faced is whether the concept of comparative fault should be applied in considering the plaintiff's conduct in strict liability actions.

Assumption of Risk

The elements of the defense of assumption of risk, as stated in Comment n, are knowledge of the danger or defect, and a voluntary and unreasonable encounter of it.¹⁰² The plaintiff must have actual knowledge of the particular risk in order for assumption of risk to constitute a valid defense.¹⁰³ Stated otherwise, assumption of risk requires a subjective realization by the plaintiff of the danger presented by a product. A plaintiff may not be barred from recovery merely because circumstances should have put him on notice that the product was

dangerous. Nevertheless, actual knowledge may be inferred from the circumstances of the case.¹⁰⁴

There is currently a split of authority between jurisdictions as to exactly what knowledge or type of knowledge on the part of a plaintiff is required to establish assumption of risk. Some courts seem to require that a plaintiff must be aware of the specific defect which threatens him with danger. Thus, in a recent Pennsylvania case involving a helicopter crash due to an alleged defect in design, it was said that a plaintiff "is precluded from recovery only if he knows of the specific defect eventually causing his injury and voluntarily proceeds to use the product with knowledge of the danger caused by the defect."¹⁰⁵

In apparent opposition to the decisions which hold that knowledge of the specific defect is necessary for assumption of risk are those which deem the knowledge requirement satisfied by a generalized knowledge of the danger encountered without reference to the specific defect. For example, where the plaintiff's decedent was working under the bed of a dump truck, a knowledge of the danger of his position, but not of the alleged design defect which caused the bed to fall, was held to be sufficient to satisfy the knowledge requirement.¹⁰⁶

Courts will consider factors such as age, experience, and surrounding circumstances in evaluating a plaintiff's knowledge of a defect. Thus, a carpenter who was struck in the eye by a nail which shattered when he hammered was found not to have assumed the risk even though he continued to use the nails after the heads of several of them had broken off. In affirming a jury verdict for the plaintiff, the court noted that he was only 19 years old and had only been working for a short period of time.¹⁰⁷

The obviousness of danger in the product may be a highly relevant factor in determining whether a plaintiff has sufficient knowledge to assume the risk.¹⁰⁸ However, cases dealing with obvious dangers in connection with assumption of the risk should be distinguished from those decisions in which the patent danger rule is applied in finding no design defect. Pennsylvania, for example, does not recognize the patent danger rule, but a Pennsylvania decision has held a manufacturer not liable, as a

matter of law, where the plaintiff was injured while reaching into a glass-breaking machine to prevent it from jamming.¹⁰⁹ The court emphasized the deliberate and voluntary nature of the plaintiff's action.

Warnings or specific directions concerning the avoidance of the danger posed by a product are also relevant in determining whether the plaintiff had the requisite knowledge for assumption of risk. For instance, where a plaintiff had been provided with the manufacturer's instructions as to the proper tire size and air pressure for his vehicle, his action in disregarding those instructions was the basis for barring his recovery under the doctrine of assumption of risk.¹¹⁰

The second element of the assumption of risk defense in strict liability actions is the voluntariness of the plaintiff's action in encountering the danger presented by the defective product. In evaluating the voluntariness of the plaintiff's encounter of the risk, some decisions take into consideration the fact that the plaintiff was required to make a split-second decision. For example, where the plaintiff's defective brakes had failed and he was required to decide whether to turn into a gas station wall or to continue along the highway, his decision to turn into the gas station wall was held, as a matter of law, not to be assumption of risk because the decision was not "voluntary."¹¹¹ Similarly, the Supreme Court of Texas has observed that "a negligent failure to choose the best escape from the throes of peril is not a voluntary encounter with the danger."¹¹² It has also been recognized that in an employment situation, the economic pressure on an employee assigned to a dangerous machine may negate the element of voluntariness.¹¹³

Comment n to Section 402A introduces the element of reasonableness to the defense of assumption of risk as it applies to strict liability actions. In the conventional application of the defense, its submission to the jury is on a subjective basis, since it requires the jury to find that a plaintiff knowingly and willfully assumed the risk. The plaintiff's claim is only barred if he was unreasonable in assuming the risk.

Although many jurisdictions have expressly adopted Comment n, only a handful of decisions have explored the impact of applying

reasonableness in evaluating assumption of risk. In discussing the proper approach to the issue, the Supreme Court of Oregon has recently stated:

It should be emphasized that this element of unreasonableness pertains only to the nature of plaintiff's decision to encounter the known danger. We are not concerned with the apparent reasonableness or unreasonableness of the physical conduct through which plaintiff encountered the danger, but rather the reasonableness of his decision to do so. This distinction,¹¹⁵ while seemingly theoretical, is significant.

One Texas court, on the other hand, has specifically rejected Comment n to Section 402A insofar as it advocates the concept of reasonableness as a criterion in judging assumption of risk.¹¹⁶

Misuse

That conduct on the part of the plaintiff which the courts categorize as "misuse" differs significantly from assumption of risk. Comment h to Section 402A recognizes that an abnormal use or misuse of a product may defeat a claim that an injury was caused by the defective or unreasonably dangerous condition of the product. Causality, of course, is a necessary element of the plaintiff's case. For example, a plaintiff who suffered a fall from an allegedly defective ladder is required to show that the ladder was being used in a normal fashion in order to recover.¹¹⁷ In another case, the manufacturer prevailed on the causation issue where a metal pin inserted in the plaintiff's leg broke when the plaintiff tried to walk on it against the specific instructions of his doctor.¹¹⁸

Misuse by the plaintiff may indicate the absence of a defect, as well as lack of causation. In a case where the plaintiff disregarded a warning not to use a grinding wheel above certain speeds, for example, his action for damages was defeated because he failed to prove that the wheel was defective.¹¹⁹ Alteration of a product may also constitute misuse. When the plaintiff nailed wooden strips to the bottom of a ladder, the ladder was found not defective and recovery was barred.¹²⁰

In the situation where the plaintiff's misuse and the defective condition of a product combine to cause the injury, the plaintiff will be allowed to recover. In a Texas case where the jury found that the plaintiff was negligent in his use of the product and also that the product was defectively designed, it was held that recovery would be barred only if the plaintiff's misuse had been the sole cause of his injuries.¹²¹

The test for establishing whether a plaintiff's conduct in relation to a product should bar his recovery is whether the plaintiff's manner of use was foreseeable. Foreseeability seems firmly accepted as the preferred standard for evaluating the legal consequences of a plaintiff's conduct because of the broad protection which it affords plaintiffs in comparison with other standards.¹²² Occasional decisions, however, apply a narrower, intended use test. The major distinction between foreseeability and intended use is the difference between an objective and subjective standard in evaluating the use of a product.¹²³ In the automobile-crashworthiness cases where a defective or dangerous condition results in enhanced injuries, although it was not the cause of the accident, the application of an intended use standard will result in a dismissal of the plaintiff's case: accidents are not the intended use of an automobile.¹²⁴ On the other hand, accidents are an easily foreseeable occurrence, and application of a foreseeability standard¹²⁵ will allow recovery for injuries enhanced by a dangerous design.

A number of factors are relevant in determining whether a particular use of a product is foreseeable. Some courts compare the gravity of the potential harm with the expense of discovering and guarding against a dangerous use of a product.¹²⁶ The frequency or unusual nature of a particular use may also be considered relevant as to whether a plaintiff's recovery should be barred. Some decisions appear to place a very great burden on manufacturers. For example, one court has indicated that in order to constitute a bar, the alleged misuse must be so unusual as to eliminate any need of the defendant to anticipate it.¹²⁷ Other courts will look to the actual frequency of the misuse and only impose liability if it was likely to occur.¹²⁸

Finally, it should be noted that there is confusion in the case law as to whether a plaintiff's foreseeable, but careless,

use of a product will bar recovery. For example, in some situations a manufacturer might be able to foresee that a product user will remove a safety device on a machine or fail to heed a warning.¹²⁹ This is one more area where it is extremely difficult for a manufacturer to predict his basic responsibility for injuries caused by his products.

Contributory Negligence

Unlike misuse, there is no question but that contributory negligence is an affirmative defense. Comment n to Section 402A, however, does not recognize the applicability of contributory negligence in its conventional form in strict liability actions. Thus, the negligent failure to discover a defective condition or failure to use reasonable care to avert injury after such discovery will not bar recovery. However, to the extent that a plaintiff proceeds negligently in the face of a known danger, his conduct will be covered by the defense of assumption of risk.

Only three jurisdictions expressly reject the Restatement view that failure to discover a defect or avoid injury may constitute contributory negligence. The New York Court of Appeals in Codling v. Paglia¹³⁰ held that plaintiffs in strict liability actions were required to have exercised that degree of care for their own safety that a reasonably prudent person would have exercised under the same circumstances. Nevertheless, contributory negligence which plays a minor role in causing an accident will not bar recovery. The plaintiff's negligence must be a substantial factor in bringing about his injury.

In a later decision, New York abolished the patent danger rule, which formerly would have defeated the plaintiff's action.¹³¹ However, it was noted that the obviousness or openness of the danger is available as a defense to the defendant on the issue of whether the plaintiff had exercised the reasonable care required to protect himself under the circumstances.

New Hampshire¹³² and Wisconsin¹³³ have also recognized the applicability of conventional contributory negligence to strict liability actions. In both jurisdictions, this result has been tempered by the application of comparative fault principles.

Comparative Fault

The application of comparative fault principles to actions in strict liability is regarded as having great potential for relieving some of the inequities incurred by both plaintiffs and defendants as a result of the "all or nothing" approach to recovery presently in use. A number of jurisdictions now have decisions in which the relationship between comparative fault and strict product liability is considered.

Wisconsin is the jurisdiction with the most experience in this area. Its initial decision to adopt strict liability indicated that no distinction would be made between contributory negligence in its conventional form, and assumption of risk, in the application of Wisconsin's comparative negligence statute.¹³⁴ The Wisconsin court also indicated that misuse of a product might relieve or limit liability. The rationale of the Wisconsin approach of applying comparative fault in strict liability cases was that the latter merely amounted to negligence per se, to which the plaintiff's fault could be compared. Thus, the court reasoned that the defective nature of a product could, as a causal factor of an injury, be compared with the causal contributory negligence of the plaintiff. Other courts, in applying comparative fault principles to strict liability actions, have simply concluded that such actions are imbedded in the concept of fault.¹³⁵

In contrast to the Wisconsin approach to comparative fault, a more limited approach has been adopted in Florida, where apportionment of fault in strict liability actions is restricted to assumption of risk, and the failure to exercise due care for one's safety after the discovery of the product's dangerous condition.¹³⁶ Oklahoma has said that applying a comparative negligence statute to the defense of assumption of risk in a products case is forbidden because of specific statutory language limiting apportionment to situations where the plaintiff's conduct was formerly classified as contributory negligence.¹³⁷

A recent Wisconsin decision has indicated that foreseeable misuse of a product by a plaintiff would limit his recovery under the comparative fault approach, while unforeseeable misuse would bar recovery completely.¹³⁸ Different reasoning has been adopted

by a Federal District Court sitting in Idaho.¹³⁹ The court concluded that the rationale of Idaho's comparative negligence statute required a comparison of all legal causes of the plaintiff's injuries. This led the court to reject the argument that unforeseeable misuse would constitute an absolute defense. Accordingly, both foreseeable and unforeseeable misuse are taken into account in the apportionment of damages.

A growing number of jurisdictions have expressed approval of the concept of applying comparative fault concepts to strict liability actions,¹⁴⁰ even though strict liability applies where all possible care was exercised in the preparation of the product. Legal commentators have also pointed out the advantages to be derived from apportioning damages on the basis of fault in strict liability cases.¹⁴¹ Only one jurisdiction has departed from this trend.¹⁴² Thus, it seems safe to say that, although it entails certain conceptual problems, the approach of applying comparative fault principles to strict liability actions will be increasingly utilized in order to overcome the inequities currently involved in application of the "all or nothing" approach. This trend may be accelerated by the National Conference of Commissioners on Uniform State Laws' recent approval of a model Comparative Fault statute. The law encompasses both negligence and strict liability actions. Nevertheless, it would seem that for the foreseeable future uncertainty and variety of results will be part of state tort law on the subject of plaintiffs' conduct in product liability actions. Chapter VII discusses and evaluates remedial proposals that could improve this situation.

A Product Liability Defendant's Right to Shift the Cost of Accidents Onto Others.

Introduction

There are two basic ways a defendant can shift the cost of an accident on to a party other than the plaintiff: by an action in indemnity or a claim for contribution. Indemnity is usually the recovery of the full amount of one's liability from a third party. Usually, awards of indemnity are based on one of three basic theories:

One involves the concept of different qualities of negligence; another involves a breach of duty as between tortfeasors; the third gives indemnity to the tortfeasor who is vicariously liable by operation of law.¹⁴³

The courts of Illinois¹⁴⁴ and the Tenth Circuit Court of Appeals, in interpreting Kansas law,¹⁴⁵ have decided that a manufacturer who is held strictly liable in a products case cannot recover indemnity from a purchaser. Other state courts allow such claims.

Contribution is the recovery of part of the loss from a third party. The loss is divided (or apportioned on the basis of fault) among those responsible. The essence of contribution is the existence of joint liability:

[E]ven though there may have been no concert of action between the appellees, the cumulative effect of their several acts was a single, indivisible injury, which probably would not have resulted but for the concurrence of such acts.¹⁴⁶

Traditionally, contribution among joint tortfeasors was not allowed, because it was believed that the courts should not aid wrongdoers. This rule has been changed by judicial mandate in nine states,¹⁴⁷ and by statute in at least 17 others.¹⁴⁸ To recover contribution, a manufacturer must show that another party was at fault. This is a distinctly different theory from that of indemnity, where the manufacturer must show that the other party's fault was both greater and also of a different quality. It may also conflict with the policy of spreading the loss which underlies strict liability. Accordingly, there has been some difficulty in integrating old doctrines with strict liability principles. One court has flatly stated that there is no right of contribution between one who is held strictly liable and one who is held liable on a traditional negligence theory.¹⁴⁹ Other courts allow such claims.

For purposes of contribution and indemnity, third parties may be classed as (1) ultimate purchasers, (2) intermediaries, such as retailers or wholesalers, and (3) co-manufacturers, such as assemblers or component part manufacturers.

Suits Against Ultimate Purchasers

Indemnity is rarely obtained from ultimate purchasers. Courts sometimes conclude that the manufacturer has not stated a claim for indemnity, but only a defense to the original lawsuit.¹⁵⁰ Although indemnity issues regarding the quality of the conduct traditionally focus on active and passive negligence, some courts have considered the issue in terms of a duty owed by the user to the manufacturer.¹⁵¹ Where the user or owner is an ordinary person with no special knowledge, courts have found that there is no duty owed the manufacturer and, therefore, no basis for indemnity.¹⁵² Where the user is engaged in a trade requiring special knowledge, however, the courts are more likely to find that he owes some duty to the manufacturer.¹⁵³

Common liability is a prerequisite for recovering contribution. A manufacturer cannot recover contribution, therefore, from one who could not be liable to the original plaintiff. Thus, those who are immune from a suit by the original plaintiff--such as spouses and employers--are also protected from suits for contribution.¹⁵⁴ Spouses are usually protected when the doctrine of interspousal immunity exists in the jurisdiction.¹⁵⁵ Far more important in product liability law, however, is the immunity of employers, based on Worker Compensation laws. Employers are thus a special class of ultimate purchasers.

Worker Compensation laws have been interpreted as absolutely barring recovery of contribution from employers under the laws of at least five states.¹⁵⁶ Several courts have recognized the resultant burden on manufacturers, but have stated that the solution must be a legislative one.¹⁵⁷ The consequences are that manufacturers must bear losses caused, in part, by the negligence of an employer, and that there is less incentive for employers to take safety precautions or warn employers of the hazards involved.

Although four states have held that interspousal immunity does not bar a defendant's recovery of contribution from the spouse of the plaintiff,¹⁵⁸ Pennsylvania is the only state to hold that a defendant may recover partial contribution from an employer covered by the Worker Compensation laws.¹⁵⁹ This rule

has been applied even where the manufacturer is strictly liable and the employer negligent.¹⁶⁰ An approach which lies between that of Pennsylvania and the other jurisdictions is to allow contribution where the employer physically altered the product.¹⁶¹

The Supreme Court of Minnesota, in sounding a strong response to the inequities of the employer's nonliability under Worker Compensation laws, has held¹⁶² that the bar against recovery of indemnity is unconstitutional:

[N]o legitimate objective is fostered by an interpretation of the workmen's compensation laws to prevent indemnification to a third-party tortfeasor from a negligent employer. With this in mind, there may be a due process violation when the third-party tortfeasor's right to indemnity is extinguished by the workmen's compensation laws without providing him a reasonable substitute for his right.¹⁶³

Suits Against Intermediaries

When a manufacturer seeks indemnity from one who is later in the stream of commerce, but who is not the final purchaser--such as a distributor or retailer--courts have given policy reasons for extending product liability to such intermediaries. This is especially true when the court has already said that a basic goal of strict liability is to distribute a loss among those best able to bear it:

Retailers like manufacturers are engaged in the business of distributing goods to the public. They are an integral part of the overall producing and marketing enterprise that should bear the cost of injuries resulting from defective products. Strict liability on the manufacturer and retailer alike affords maximum protection to the injured plaintiff and works no injustice to the defendants, for they can adjust the costs of such protection between them¹⁶⁴ in the course of their continuing business relationship.

Such an approach, however, argues for an apportionment of the loss, and not a complete shifting of the loss as occurs with indemnity.

The unfairness of the "all-or-nothing" application of indemnity was discussed at length by the California Appellate Court in Ford Motor Co. v. Robert J. Poeschel, Inc.¹⁶⁵ There, the court affirmed dismissal of Ford's complaint against a dealer, but discussed at length its desire for a fairer approach:

Judicially favored objectives of deterrence and accident prevention would be promoted by imposing some liability on a dealer who knew of danger and did nothing. To shift the entire loss to him would not serve these objectives, for then the manufacturer would escape scot-free. A wise rule of law--one designed to stimulate responsibility throughout the merchandising chain--would require both parties to share the loss.¹⁶⁶

While rarely discussing such policy matters directly, most courts are, in fact, reluctant to award a manufacturer indemnity from a later intermediary, such as a distributor or retailer. As in the cases concerning ultimate purchasers, courts usually base their decisions on alleged failures to state a claim, the active and passive negligence distinction, or the lack of a duty to the manufacturer. Courts often dismiss claims for indemnity against intermediaries, for example, when the claims, if proven, would be a complete defense to the original action.¹⁶⁷

Courts more often award manufacturers contribution from intermediaries.¹⁶⁸ Courts are normally more willing to divide or apportion the loss between manufacturer and dealer by allowing a contribution claim than to shift the entire loss to the dealer under an indemnity theory.

Suits Against Co-Manufacturers

Courts are apparently more willing to allow indemnity claims against those earlier in the stream of commerce than against those who are later.¹⁶⁹ Even here, however, the application of the traditional active and passive rule restricts recovery, when

placing a defective product in the stream of commerce is treated as active negligence, precluding recovery.¹⁷⁰

Courts also frequently consider the relative knowledge of the two parties,¹⁷¹ denying indemnity to those with special experience by characterizing their failure to act as active negligence.¹⁷² This same tendency is evident in the opinions that speak of a duty to inspect, instead of distinguishing between active and passive negligence. Some courts have awarded indemnity to manufacturers whose original liability is based on a failure to inspect a component part.¹⁷³ Most courts, however, have regarded a failure to inspect as active negligence, especially by manufacturers with special experience and knowledge.¹⁷⁴ However, a manufacturer who fails to inspect a component part may still recover indemnity if inspection was impractical or impossible.¹⁷⁵ Superior knowledge of an assembler may also relieve a component part manufacturer of a duty to warn, shielding it from a claim for indemnity.¹⁷⁶ To be sure, some courts speak of "primary and secondary" causes instead of active and passive negligence or a duty to inspect component parts.¹⁷⁷ However, the results under the two analyses are much the same. The advent of strict liability has led the Illinois courts to abandon entirely notions of active and passive negligence, as well as primary and secondary liability, in determining indemnity among co-manufacturers.¹⁷⁸

Because indemnity actions against co-manufacturers have been relatively successful, compared to similar actions brought against other defendants, the number of contribution actions against co-manufacturers has been fairly small. Typically, when contribution is sought, it is alleged that the co-manufacturer supplied a faulty component part to the primary manufacturer.¹⁷⁹

The New Doctrines of Comparative Fault

New doctrines distribute the loss according to each defendant's contribution to the injury. These new doctrines have been instituted directly by statute, indirectly by a court opinion expanding existing statutes, or by judicial decree.

Uniform Laws.--The 1939 version of the Uniform Contribution Among Tortfeasors Act included an optional provision allowing

apportionment of damages according to the degree of fault.¹⁸⁰ The provision was adopted in only four states: Arkansas, Delaware, Hawaii, and South Dakota.¹⁸¹ The 1955 version of the U.C.A.T. reversed on this point and explicitly forbade such apportionment.¹⁸² There are not enough decisions to determine the effect of the 1939 Act in the four states which adopted it.¹⁸³ As has been indicated, the National Conference of Commissioners on Uniform State Laws recently adopted a Uniform Comparative Fault Act. This act provides that responsibility among parties should be based on the proportionate fault of each. The Conference has indicated that the 1955 version of the U.C.A.T. should be modified to accord with the new Uniform Comparative Fault Act by any state that adopts the comparative fault principle.

Extending Comparative Negligence Statutes.--Some states have statutes applying comparative negligence to suits between plaintiffs and defendants. The statutes do not explicitly extend the doctrine to suits among defendants for indemnity or contribution.¹⁸⁴ However, the courts of Wisconsin¹⁸⁵ and Maine¹⁸⁶ have extended comparative negligence to suits among defendants. In contrast, the First Circuit Court of Appeals has refused to extend New Hampshire's law in a similar fashion.¹⁸⁷ The Minnesota courts have not yet expanded that state's statute,¹⁸⁸ although at least one commentator has urged them to do so.¹⁸⁹

By Judicial Decree.--In Dole v. Dow Chemical Co.,¹⁸⁹ the New York Court of Appeals adopted a rule apportioning damages, without relying on a comparative negligence statute:

The conclusion reached is that where a third party is found to have been responsible for a part, but not all, of the negligence for which a defendant is cast in damages, the responsibility for that part is recoverable by the prime defendant against the third party. To reach that end there must necessarily be an apportionment of responsibility in negligence between those parties.¹⁹⁰

Shortly thereafter,¹⁹¹ the New York rule was enacted as a statute.

In the four years since the rule was adopted, the New York courts have had time to develop the details of its application. In contrast to traditional indemnity, the Dole rule allows more than one defendant in the chain of supply to be found liable for contribution.¹⁹² While Dole itself involved a negligence action, the rule was quickly applied¹⁹³ in breach of warranty actions involving product liability,¹⁹³ and in actions between one liable for negligence and another liable for breach of warranty.¹⁹⁴ By statute, a settlement and release from the original plaintiff protects a defendant from a later suit for contribution by another defendant, but the plaintiff's claim against the remaining defendants is reduced by the amount of the settlement.¹⁹⁵

In practice, when the Dole rule is applied, the courts appear reluctant to require contribution or partial indemnity from ultimate purchasers, members of the class protected by product liability law. Thus, the courts have denied manufacturers contribution from the driver of a car or the dealer who repaired it,¹⁹⁶ and from the parents of children who ate paint containing lead.¹⁹⁷

Whether the Dole rule will be applied in other jurisdictions is an open question. The Virgin Islands recently followed the approach in Dole and applied comparative negligence to the problem of apportioning the loss among defendants.¹⁹⁸ Florida¹⁹⁹ and California²⁰⁰ have also adopted comparative negligence by judicial decree, but no substantial body of law has developed concerning contribution among those liable for a defective product. A California court has very recently held that comparative negligence does not remove the employer's immunity from contribution arising out of the Worker Compensation act.²⁰¹ Illinois has adopted a rule apportioning damages for the aggravation by a negligent doctor of injuries caused by another.²⁰² One commentator suggests this case provides a basis in Illinois for apportionment of damages in product liability cases.²⁰³ The Federal District Court in Tennessee has recently applied a similar approach when ruling that an elevator manufacturer could not recover full indemnity but was entitled to a partial recovery from a components manufacturer.²⁰⁴ The case did not involve a personal injury, but the standard enunciated

could readily be applied to a product liability case involving personal injury.

On the other hand, at least ²⁰⁵one state, New Jersey, has explicitly rejected the Dole rule. The New Jersey case involved a claim against an employer for contribution and the court felt it would be, in effect, overruling the policy of the Worker Compensation act if contribution were allowed.

In sum, the rules regarding apportionment of damages among defendants vary in important respects and are in a state of flux. In Chapter VII, Section IV, this report discusses means whereby uniformity may be brought into the system. The benefits and shortcomings of a variety of alternative approaches are also presented.

Product Liability Law in the Workplace--Have
Courts Developed or Have Statutes Required
Different Legal Treatment for Work-Related and
Non-Work-Related Injuries?

Introduction

Anecdotal data reaching the Task Force suggest that workplace injuries are an important and special part of the product liability problem.

Preliminary data from the Insurance Services Offices show that a substantial amount of product liability damages (in terms of relative size of awards) occur in workplace injuries. For that reason, it seemed useful to discuss some of the legal rules that surround that type of injury.

Many products cases involving injuries which are sustained by employees in the course of employment present issues quite different from those dealing with non-workplace injuries. Several factors appear to induce courts to apply different rules to the treatment of work-related product injuries than to non-work-related product injuries. These factors may be grouped into two broad categories: (1) those that are based on the injured person's status as a worker and (2) those that are based on the existence of the employer as one who intervenes between the

injured worker and the manufacturer of the injury-producing product.

Status as an Employee

Persons who are injured at work, of course, are normally covered by Worker Compensation statutes. Under this system, an employee injured in the course of employment is provided benefits without regard to fault.²⁰⁶ The injured worker is entitled to benefits for physical injury (including wage loss and medical expense reimbursement) or death.²⁰⁷ There is also emerging an increased concern that the injured worker be rehabilitated, although practical implementation of such measures has met with difficulties.²⁰⁸ Under Worker Compensation systems, a participating employer is usually--but not always--protected from suit by the injured worker.²⁰⁹ Such protection is not generally extended to wrongdoers other than the employer, since the compensation system is not designed to extend immunity to parties that do not make financial contributions to it.²¹⁰

Of those factors associated with the status of the injured party as a "worker," the most prevalent is his experience, either as a long-term user of the specific article which caused injury or, more generally, as a member of a particular profession or occupational group. "Experience" has been a determinative, or at least an influential, factor in cases involving three particular issues common to product liability litigation: the manufacturer's duty to warn of hazards associated with the product, the manufacturer's duty to guard against nonobvious dangers, and the establishment of the defense of assumption of the risk. In respect to each of these issues, it may be asserted that the injured party's experience had the effect of making a particular hazard more obvious to him than it would have been to an inexperienced user of the product, thus resulting in imposition of different standards in the assessment of the actions of the manufacturer and the injured party in the workplace situation. This is particularly common in respect to the issue of a manufacturer's or supplier's duty to warn of product hazards.²¹¹ It has been held that there is no duty to warn a worker who is truly experienced,²¹² as opposed to an actually inexperienced injured employee.²¹³

Where a dangerous condition is equally within the technical knowledge of the supplier, the employer and the experienced employees, the supplier has no obligation to warn of dangers. Unusually extensive discussion of this issue was provided by the Iowa Supreme Court in West v. Broderick and Bascom Rope Co.²¹⁴

The injured party's work experience is also often cited as a factor in determining whether the warning which was given was, in fact, adequate.²¹⁵ The courts often hold that, while there is a duty to warn all users (even workers), the adequacy of the warning may be determined in light of the professional status of the trained and experienced workers who are expected to use the product.²¹⁶

The experience of the injured worker has an effect on a cause of action based on a manufacturer's failure to warn in respect to the defense of contributory negligence. In two cases where contributory negligence was allowed as a defense to a claim of negligent failure to warn, the court focused upon the long professional experience of each of the plaintiffs as a key factor in deciding whether each had knowledge of the danger from an independent source, so as to eliminate failure to warn as a proximate cause of the harm.²¹⁷ In addition, experience and expertise have been cited as matters requiring different treatment of work-related injury claims in respect to the question of the obligation of a manufacturer to provide safety guards.

Most interesting in respect to the experience factor is a comparison of two cases in which the injuries involved falls from scaffolds which did not have safety rails. Upon the same facts, an experienced professional painter was denied recovery under New York law against the supplier of the unguarded scaffolding,²¹⁸ while an inexperienced volunteer worker was permitted to proceed with his claim against the lessor of the scaffolding under Minnesota law.²¹⁹

Plaintiffs' counsels have argued that the obvious danger defense ignores a basic maxim of the workplace that even the most experienced worker may suffer a momentary lapse of concentration which, when coupled with an absence of safety devices, may result in severe injury. It has been said that:

Contributory negligence in a factory setting may often be just the statistically inevitable consequences of the performance of repetitive mechanical chores in a distracting factory environment. Even the most careful worker will make an occasional mistake which may result in injury.²²⁰

Increased recognition of such arguments has led to what the Seventh Circuit Court of Appeals sees as a trend away from the rule that there is no duty to guard against dangers obvious to experienced workers.²²¹ In fact, the case most often cited in support of that rule, Campo v. Scofield,²²² has itself been recently overruled by the New York Court of Appeals.²²³

Another factor which sets an injured worker apart from others who are harmed by products is that the actions of the worker are often guided by safety rules established either by statute or informally promulgated by his employer. The effect which will be given to a showing that the injured worker was acting in violation of a safety rule when injured varies in different jurisdictions.²²⁴

While a worker might be at a disadvantage, as opposed to nonworker users, in that he is presumed to have the benefit of safety instructions to guide his actions, he does enjoy the advantage of being able to assert usage in the trade to support his claim that he did not himself act negligently. It has been held that the fact that an injured worker was following customary practice and usage, while not necessarily absolving him of contributory negligence, is relevant to the jury's consideration of the issue.²²⁵

In terms of the "status" of an injured worker in relation to the manufacturer, it has been held that a simple negligence claim may be maintained against a manufacturer by an employee reasonably expected to be in the vicinity of the probable use of the product.²²⁶ Moreover, Comment 1 to Section 402A seems to eliminate any doubts regarding the necessity of a privity requirement in strict liability suits by injured workers.²²⁷ However, in Wirth v. Clark Equipment Co.,²²⁸ the Ninth Circuit Court of Appeals, applying Oregon law, left for jury determination the question whether an employee who was not

actually performing his duties at the time he was injured was a "user" entitled to bring suit under Section 402A or a "bystander," to whom Oregon had not at that time extended protection.

More often, however, privity problems in the workplace injury context involve claims for breach of warranty. Some courts have permitted injured employees to base their claim on warranty despite the absence of privity of contract,²²⁹ on the reasoning that the employee of the purchaser is within the distributive chain which marks the parameter of a manufacturer's warranty liability,²³⁰ or that implied warranty protection extends to all those who are reasonably expected to use the product.²³¹ However, some jurisdictions do require a showing of privity to support a cause of action based on breach of warranty,²³² and refuse to expand horizontal privity to include employees of a "buyer" for purposes of providing warranty protection under Section 2-318 of the Uniform Commercial Code.²³³

Thus, a person injured by a product may find himself in a different litigational position when he was an employee--particularly an experienced one--rather than an ordinary consumer.

Concept of Involuntary Use of Product

A consideration that is often involved in the discussion of workplace injuries is the view that an employee is less able to protect himself from injury caused by a product used in his employment than is the ordinary user of products. The worker's method of operation, use of safety devices, and even the very basic decision to use the machine, tool, or substance which eventually injures him are matters dictated by his employer. His actions are always governed, to some degree, by the fact that his livelihood depends upon his ability to please an employer, who is naturally interested in productivity and speed. This factor is often cited by counsel for injured workers in an attempt to avoid the contributory negligence and assumption of risk defenses. This matter of "economic compulsion" has been discussed in a number of decisions, and it appears that many courts have given recognition to the precept that, where a person must work in a place of danger and give full attention to his work, his conduct

may be judged less harshly than that of one who is using a product in a less inhibiting situation.²³⁴ As the Federal District Court for the Eastern District of Arkansas observed:

The "voluntariness" with which a worker assigned to a dangerous machine in a factory "assumes the risk of injury" from the machine is illusory.²³⁵

Thus, it appears that most courts will permit a jury to consider this "economic compulsion" factor in its appraisal of an assumption of risk defense, since the duties of employment are a significant factor in deciding whether an employee proceeded unreasonably in using an obviously dangerous product. It has been held to be the rule in Pennsylvania as well that the obligation to do a job must be considered in determining a standard of conduct for one injured in the performance of his employment duties.²³⁶ In Hill v. Clark Equipment Co.,²³⁷ a Michigan court, applying Alabama law, left to the trier of fact the question whether use of an unguarded machine was contributory negligence, but pointed out that: "Hill was obliged to use the forklift truck in his employment."²³⁸

The Oregon Supreme Court also has pointed out that working conditions are a relevant element to be considered in assessing the reasonableness of encountering a known risk for purposes of establishing the assumption of risk defense outlined in Comment n to Section 402A:

We feel that working conditions and related circumstances are a particularly relevant consideration in an inquiry into the reasonableness of a decision to encounter a job-related danger. Such factors often will have a strong influence on that decision, and, in some cases, they may represent the most important motivational factors. For example, a worker might fear that a slowdown in his individual production would slow down the entire production team and thereby draw the attention of his boss. If he has a history of such slowdowns, or of causing excessive spoilage or ruining machine parts, he may have good cause to fear dismissal. The job market could be tight, and he may have little hope of being able to find a new job. Moreover, the

situation may demand an immediate, hurried decision. It is certainly possible that, under such circumstances, a reasonable jury could find that his decision to encounter a known risk was not unreasonable.²³⁹

Most jurisdictions hold that the economic compulsion factor presents a jury issue in respect to contributory negligence or assumption of risk under Section 402A and Comment n.²⁴⁰ The impact of this factor may become even more pronounced as the concept of manufacturer's liability for "occupational diseases" receives more attention.²⁴¹

While there are jurisdictions which refuse to permit consideration of "economic necessity" in relation to assumption of risk,²⁴² the trend may be to accept it.

The Presence of the Employer

It should be noted that the defendant, the manufacturer of the machine involved in the litigation, has not been the party who created the pressure on the worker to act as he did. That party is his employer. In that regard, a manufacturer may attempt to absolve himself of liability by asserting that the injured person's employer was in breach of some obligation to the worker. For example, it is a tenet of product liability law that a manufacturer or supplier must warn of hazards associated with the product.²⁴³ If, however, a court concludes that this duty is limited to providing cautionary information only to the purchaser of the product (the employer), an employee who is injured because he was never warned about a hazard may be prevented from recovering against a manufacturer who could not escape liability if the injured party had been a nonworkplace user. The Restatement approach to the problem is presented at length in the explanatory notes to Comment n to Section 388, which state that giving cautionary information to a third person may be insufficient to relieve the supplier from liability to the injured party.

The courts have given sharply divergent responses to the question of whether a manufacturer need only warn its immediate vendee, the employer, or whether it must assure that the ultimate

user of the product, the employee, is²⁴⁴ aware of the hazards associated with the use of the product.

Some courts have refused to decide the question as a matter of law, leaving to the jury the problem of deciding whether a warning given to an employer is sufficient or whether the manufacturer must communicate the information to the ultimate user himself.²⁴⁵ Other courts base their decision on the nature of the product.²⁴⁶

Another duty to users which manufacturers attempt to "pass on" to the employers of industrial users is the obligation to provide guards or safety devices on hazardous products. Their attempts in this respect, however, have met with far less success than in the duty to warn context. Basically, a manufacturer may not rely on the expectation that the employer²⁴⁷ will add a safety device to protect the user of his product, even where a state safety statute requires the employer to supply such protection.²⁴⁸ Of course, where an employer does satisfy his obligation to provide adequate safety devices, the product is no longer unreasonably dangerous and recovery against the manufacturer is precluded at least in regard to claims based on defective design.²⁴⁹

Another group of cases which deal with work-related injuries focuses upon specific affirmative actions of an employer which may enable a manufacturer to avoid liability to a product-injured worker. For example, a manufacturer may avoid liability on a theory of negligent design where it can show that the injured party's employer had in fact submitted the design and specifications from which the injury-producing product was constructed. Simple logic forbids imposition of defective design liability upon a nondesigner.²⁵⁰ It is uncertain, however, whether this result will occur under strict liability cases.

One action of an employer which may operate to deprive an injured worker of his right to recovery against a manufacturer is the effectuation of an alteration of the product.²⁵¹ This was expressly noted when Section 402A was promulgated. Today, however, state courts appear to differ as to whether the manufacturer had a duty to foresee that the manufacturer would alter the product and enhance its danger. Some courts have

placed a duty on a manufacturer to design its product in such a way as to preclude such alteration.

Thus, the presence of the employer is a factor to be considered in many workplace product liability cases, but the cases do not agree as to how his actions should relate to the relationship between the injured worker and the manufacturer of a product.

Conclusion

It cannot be denied that courts have added judicially created factors such as experience, economic necessity, and presence of employer to the statutory compensation schemes enacted in all jurisdictions, to produce a phenomenon of different treatment of workplace, as opposed to non-workplace, product injuries. The result has been a shifting of ultimate costs in regard to workplace accidents. The costs of these accidents are ultimately resolved outside of the Worker Compensation system. The Task Force has considered a number of proposals for change in this area. In that regard, the reader is directed to discussions in Chapter VII dealing with contribution and indemnity as applied in the workplace, p. 88; prohibition or modification of subrogation by Worker Compensation carriers, p. 95; and Worker Compensation as a sole source of recovery--Abolishing the Worker's Third Party Claim, p. 103.

A REVIEW OF PRODUCT LIABILITY DATA AVAILABLE FROM THE LEGAL SYSTEM

A Survey of Secondary Sources

Introduction

The Legal Study's comprehensive search for caseload data pertaining to product liability court actions filed from 1970 to the present, both nationwide and in particular jurisdictions, reveals that there is no large body of such data. Of the state court data collection services, only one--that of Connecticut--has specific data on product liability cases. The Administrative Office of the United States Courts also reports such data. From both sources, however, the data are available beginning only in

the 1974 reports. A number of private sources have also begun to collect product liability litigation-related data, although as yet not very much is available. See Volume III, Legal Study, for a detailed discussion and listing of the secondary sources reviewed and the methodology used in the survey.

Sources of Data and Analysis

Annual Report of the Director of the Administrative Office of the United States Courts.--Since fiscal year 1974 (ending June 30, 1974), the Annual Report of the Director of the Administrative Office of the United States Courts has provided data on cases in the Federal District Courts alleging product liability claims. In fiscal year 1974, data included product liability cases filed, cases terminated, and cases pending at the end of the year. In fiscal year 1975, the data were expanded to include a specific breakdown of cases filed by seven categories: contract actions; torts to land; torts to personal property; personal injury by airline, marine, and motor vehicle; and all other personal injury. These categories remained intact during fiscal year 1976 (ending June 30, 1976). During fiscal years 1975 and 1976, however, data on terminations and cases pending were discontinued.

The data compiled show an unquestionable surge in product liability cases being filed in the U.S. District Courts. The volume has risen from 1,579 in fiscal year 1974 to 2,886 in fiscal year 1975 (an increase of 83 percent over 1974) and to 3,696 in fiscal year 1976 (an increase of 28 percent over 1975 and 134 percent over 1974) (see Table II-1). Comparing 1975 and 1976, the relationships of the three broad categories--contracts, torts to property, and personal injury--remain basically constant (see Table II-2).

When product liability suits are compared to other civil suits, it becomes clear that products suits involve only a small portion of the total civil caseload. Although the percentage is on the rise, products cases represented only 2.8 percent of the total civil caseload in 1976 (see Table II-3).

Similarly, a comparison of product liability claims to total personal injury torts indicates that while the number of all

personal injury claims has remained relatively constant from 1975 to 1976, products claims have increased significantly (see Table II-4).

In calendar year 1976, the Administrative Office of the United States Courts also began to collect data on alleged damages in product liability suits. Statistics are now available for the first three calendar months of 1976 on such claims. These statistics indicate that relatively high amounts of damages are being claimed. Of the 713 product liability cases filed in which damages were alleged, total damages claimed were \$605,590,000. The average claim was \$849,000.

It should be noted that the Legal Study, Volume III, contains an amplified discussion of product liability cases in the Federal courts.

Judicial Department of Connecticut.--The only state to collect and report data specifically on product liability cases is Connecticut. Since 1974, data have been accumulated on the number of product liability cases filed and disposed of. Both docket and trial lists have been maintained for this period, with a jury and nonjury breakdown on the trial list. The "docket list" records the filing of a claim in a court; the "trial list" reflects that portion of docketed cases which are ready for and therefore assigned to a trial date. The sole subcategorization, however, is vehicular-related product liability cases. These detailed statistics are reflected in Tables II-5 and II-6. Table II-5 pertains to the Courts of Common Pleas, while table II-6 pertains to the Superior Court, which has exclusive jurisdiction over claims above \$15,000.

Although percentages based on claims in the Court of Common Pleas must be discounted due to a court reorganization, the data show clearly that product liability activity is increasing in Connecticut. From the period covered by the 1974 report to that of the 1976 report, the total product liability cases filed in Superior Court have increased by 58 percent. Nonvehicular-related claims account for the largest increase--66 percent. During the same period, the total torts caseload increased by only 23 percent, and the total civil caseload increased by only 11 percent. Among cases assigned to trial, product liability

cases showed an increase of 36 percent, while all torts cases showed an increase of only 14 percent, and the total civil caseload showed a decrease. As a percentage of total activity, however, product liability cases are not significant. In the period covered by the 1976 report, new product liability claims accounted for only 2.6 percent of the total new torts claims and .5 percent of the total new civil claims. Trials during 1976 showed that product liability cases accounted for only 1.8 percent of the total torts cases tried and 1.0 percent of the total civil cases tried.

The information concerning product liability cases in Connecticut does not serve as a basis for projections or comments on the current status or trends of product liability cases nationwide. Moreover, it should be noted that the Connecticut court data do not address the issue of the number of product liability claims settled without an action ever having been filed in court.

Related Surveys Conducted by Other Organizations

Survey of product liability cases in the greater Kansas City area conducted by the Kansas Trial Lawyers Association.--The Kansas Trial Lawyers Association recently compiled product liability data, collected in Smith's Jury Verdict Service, for the greater Kansas City area, covering the years 1967-75. The survey revealed that product liability cases comprised only 3 percent of all civil cases before a jury in the 9-year period. This percentage has remained relatively stable during that time. In addition, the Association discovered that the plaintiff was successful in only 8 out of 22 cases (36 percent) during that period. Awards averaged \$9,850 per verdict. One-half of the successful cases involved property damage. No punitive damages were alleged.

Illinois Jury Verdict Report--Cook County Survey, 1970-75.--A survey of products cases in Cook County from 1970 to 1975 revealed that plaintiffs were successful in only 103 of 290 cases, or 35 percent. The average jury award in these cases was \$247,764. A survey of downstate Illinois cases included 82 cases. In 40 of these, or 49 percent, the plaintiff recovered.

The jury awards in these cases averaged \$100,332. These figures include three verdicts totaling over \$12 million.

A year-by-year analysis reveals no substantial increase in the number of plaintiff verdicts (although in 1975 there was a substantial leap from 1974--from 33 percent to 43 percent). The awards, on the other hand, have increased significantly. In the first half of 1976, the number of suits filed in Cook County has also increased significantly, by 30 percent (from 589 to 769).

Conclusion

Although more detailed information will become increasingly available to the public from various sources, there is presently a dearth of data concerning product liability litigation. The data that are available suggest that products actions are increasing significantly. However, products cases represented only 2.8 percent of the total civil caseload in the Federal District Courts for fiscal year 1976. In the State of Connecticut, new claims concerning products in 1976 amounted to only .5 percent of the total new civil claims. The average damage claim (to be distinguished from award) in the Federal District Courts was \$849,000 in the first three months of 1976. Virtually no statistics exist which reflect the amount of court time that is being spent on products claims in relation to the total caseload.

An Independent Survey of Product Liability Appellate Cases in Selected States

Identification of Sample States

One aspect of the Legal Study involved the selection of a sample of eight states for purposes of concentrated, more detailed analysis within the limited time frame. Analysis consisted of a statistical study of all product liability decisions reported in the West Publication System since 1965, in which the law of the eight selected states was applied. Most of these reported decisions were appellate cases. Both state and Federal cases were included in the analysis. It should be noted that Federal courts typically apply the substantive law of the state in which the court is located.

The first criterion for the selection of the sample states was that the particular state must have generated a substantial number of post-1965 reported (that is, appellate level, except as noted) decisions in which injuries were alleged to have been sustained as a result of a defective product. Roughly two-thirds of the states were eliminated on the basis of insufficient decisions. Apart from the number of reported decisions, other more substantive criteria were utilized in the selection process. Of the group of states which had a sufficient number of decisions to allow for meaningful statistical analysis, the two primary bases for selection were: (1) by particular state, the application of innovative or unorthodox legal theories and approaches to product liability issues; and (2) on the whole, a balance between geographical and industrial nature of the states within the sample group.

Applying these criteria, the states selected were:

Arizona	New York
California	Pennsylvania
Illinois	Texas
New Jersey	Wisconsin

Certain states were selected largely for their importance in relation to the "unorthodox" criterion. California and New Jersey, for example, were basically selected as a result of their allegedly liberal approach to product liability issues, stemming from early acceptance of strict liability principles. New York, on the other hand, recognizes only a negligence-based cause of action in defective products cases. Wisconsin is the sole state with substantial experience in applying comparative fault principles in products cases and was chosen for that reason. In contrast to these four states, Arizona and Texas law is consonant with "traditional" product liability law in most respects.

Illinois and Pennsylvania were selected mainly due to their highly industrialized nature. The southern and western states, in contrast, are, on the whole, less industrialized. In general, the sample state group represents a mix, not only of diverse approaches to product liability issues, but also of geographic and demographic characteristics.

What the Survey Showed

Introduction.--There are two main portions of the report on the statistical data collected from the eight sample states. The first section of the survey deals with the findings of the eight states as a group, and is useful in providing basic information as to generalized trends in product liability cases. The second section involves a state-by-state breakdown of the data and is relevant, in a limited way, in comparing the trends among the eight states. The limits of the second section must be emphasized. It is not possible in a survey of this type to determine the effect of one particular rule of law in a particular state. For example, although the data collected from California decisions are useful in determining, in a broad sense, whether that state applies "liberal" (that is, plaintiff-oriented) principles in products cases, the results should not be seen as an indication of the effect of the elimination of the "unreasonably dangerous" element from proof of defect. Moreover, the internal law of a state on any given issue is often inconsistent, particularly where the highest state court has not resolved the issue.

Methodology.--The cases from which statistical data were extracted were located through the use of the West headnote system. Thus, except for trial-level decisions in the Federal District Courts and the States of New York, New Jersey, and Pennsylvania, all decisions included in the survey are of an appellate nature. All personal injury decisions under the topic heading "product liability" and other relevant key numbers, where defective product cases were concentrated, were consulted. All products cases appearing in the advance sheets located in the Harvard Law Library by September 29, 1976 were also included in the study.

Six hundred fifty-five total decisions were surveyed (see Table II-7).

A general problem with the data methodology relates to the data base. Whether the data base is a valid reflection of the total number of cases litigated or settled within the states is unclear. There is no available information to assist in drawing a conclusion whether appellate cases differ from all cases filed,

in terms of product class, complexity of legal issues, or size of damage award. It therefore seems imprudent to speculate as to how the sample differs from all products cases which are filed.

Data were collected in 14 categories:

1. Was the case tried in a state or Federal Court?
2. What was the product class?
3. Identify the plaintiff, the defendant, and third parties (indicate whether the plaintiff is the injured party).
4. Year of manufacture of product.
5. Year of injury.
6. Year of decision.
7. Was the injury work-related?
8. Where was the forum?
9. Was the trial a jury trial or nonjury trial?
10. Classify the alleged product defect.
11. Who prevailed?
12. Did a statute limit the amount of recovery?
13. What was the amount of damages?
14. Were damages at issue on appeal?

Findings--The Sample States as a Group

The Forum: State or Federal

Of the 655 cases in the survey, 509, or 78 percent, were tried in state court. Only 22 percent were tried in federal court.

Product Class

Of the 24 product classes specified, the product which is most frequently the subject of litigation is the automobile or a part of the automobile (192 cases). The next most frequent class is assembly line and other industrial type machinery or components (57 cases). These are followed by construction and loading equipment (including cranes and other hoisting apparatus), and escalators (28 cases); ladders and scaffolds (27 cases); chemicals other than adhesives, paints, solvents, and cleaning products (23 cases); and implements (18 cases).

When product class is compared to growth of litigation data, it may be seen that automobiles and industrial products account for much of the increase in caseload. Of the 655 cases in the study, 413 cases, or 63 percent, were in the 1971-76 period. Only 37 percent of the cases were disposed of in the 1965-70 period (see Table II-8). This breakdown comports with the figures gathered by the Administrative Office of the United States Courts and the Judicial Department of Connecticut to the effect that products litigation is on the increase.

Parties

In 96 percent of all products cases surveyed, the primary plaintiff was the injured party, rather than another party who was attempting to recoup some or all of the losses that had already been paid to the injured party. As might be expected, the manufacturer was a defendant in the great majority (79 percent) of the cases. The retailer was a defendant in 33 percent of the cases. Others were sued infrequently. The employer was listed as a defendant in four percent of the cases, the lessor in three percent, the installer in five percent, the wholesaler in five percent, and the manufacturer's supplier in

five percent. The Worker Compensation insurance carrier and other insurance carriers were typically not involved as defendants. The cumulative frequency of occurrence exceeds 100 percent due to the fact that multiple responses were permitted on this question.

Parties other than the plaintiffs and original defendants were involved in 198, or 30 percent, of the cases. The third-party plaintiff category was led by the manufacturer, which became a third-party plaintiff in 76, or 15 percent, of the cases in which it was an original defendant. The retailer also became a third-party plaintiff in very few of the cases in which it was involved as an original defendant--35 of 216 cases, or 16 percent of such cases.

The most frequent third-party defendant was again the manufacturer, which was named as a third-party defendant in 64 of the cases. The employer was named as a third-party defendant in 50 of the 655 cases--only 8 percent.

Year of Manufacture

Of the 198 cases which stated the year that the product was manufactured, the median date was 1964. Relatively few cases in the sample involved injuries resulting from older products. Thirteen percent of the cases listing the date of manufacture involved equipment more than 20 years old at the time of the injury. Only four percent of the cases listing the date of manufacture involved equipment more than 25 years old.

Year of Injury

In the 484 cases which provided the year of the injury, the median date was 1966. It was possible, in 30 percent of the cases, to compare the interval between the year of manufacture and the year of injury for several product classes within a period of 10 years. As shown in Table II-9, most automobile cases occurred shortly after manufacture, while cases related to machinery were spread throughout the period, with nearly one-third involving injuries occurring 10 or more years after manufacture and about 15 percent involving injuries from products

more than 20 years old. Other classes showed no significant patterns.

Year of Decision

For cases in which decisions were reported more than once, the latest decision was selected for sampling purposes. As noted in the results concerning product class, 63 percent of the post-1965 decisions fell within the 1971-76 period. There was a 71 percent increase in litigation from the 1965-70 period to the 1971-76 period.

Work-Related Injuries

With work-related injuries, defined to encompass more than workplace-suffered injuries (a truck driver who has an accident has suffered a work-related injury) roughly half of the products cases were categorized as involving work-related injuries. In the 581 cases in which it could be ascertained whether the injury was work-related, 283 responses were positive, while 298 were negative. The percentage of work-related injuries rose only slightly in the 1971-76 period. While work-related injuries accounted for 46 percent of the cases in the 1965-70 period, they represented slightly more than 50 percent of the cases in the later time period. In contrast, cases involving machinery and tools rose sharply over the two periods (see Table II-9).

The Forum

The forum (court selected by plaintiff(s) for bringing the action) was most often located in the state of injury, followed by the home state of plaintiff and then by the state of sale. The forum was less often located in the manufacturer's state (see Table II-10).

Jury or Non-Jury Trial

Of the 552 cases which indicated whether the case was heard by a jury, 411, or 74 percent, were so heard. Of the 141 remaining cases, 73 were disposed of prior to trial and 68 involved nonjury trials. Thus, of the cases that proceeded to trial, 86 percent were heard by juries. Where the plaintiff was

the injured party, 87 percent of the cases which proceeded to trial were heard by a jury. Only 62 percent of the cases where the injured party was not the plaintiff were jury trials, however. There is also a growing trend toward jury trials:

<u>Type of trial</u>	<u>Pre-1971</u>	<u>1971 and later</u>	<u>Percentage increase</u>
Jury	153	258	+69
Non-Jury	30	38	+27

Type of Defect

With defect types categorized as manufacturing defects, design defects, failure to warn, unavoidably unsafe products, failure to inspect, and "other", the sample showed that the cases were evenly split between allegations of manufacturing and design defects. While allegations of a design defect appeared in 259 cases, there were 243 cases involving manufacturing defects. Failure to warn was alleged in 130 cases, failure to inspect in 40 cases, and an unavoidably unsafe product was alleged to be "defective" in 31 cases.

When the type of defect was compared with product class, the most interesting results involved machinery and chemicals. While there were 64 allegations of defective design of machinery, there were only 28 allegations of defective manufacture. In the case of chemical products, 22 of the cases involved a failure to warn allegation, while only five cases alleged either a manufacturing or a design defect.

Disposition

Of the cases which were decided on the merits, the plaintiff prevailed in 200, or 51 percent, while the defendant prevailed in 189, or 49 percent. If the 12 cases in which the action was barred due to its procedural posture are added to the defendant's column, the split is clearly even between plaintiffs and defendants. A full 254 cases, or 39 percent of the sample, were

remanded by the appellate court for further proceedings. The result differs somewhat from the MAPI survey and the Illinois Jury Verdict Report, which showed that a somewhat smaller percentage of products cases resulted in judgments for plaintiffs in the 1970-75 period. It does, however, conform to the results found in the survey of downstate Illinois cases, where plaintiffs prevailed in 49 percent of their actions.

In instances where it was possible to compare the disposition of the case with the jury or non-jury trial data, the results indicated that the plaintiff prevailed on the merits in 60 percent of the jury trials. The defendant, on the other hand, prevailed in 56 percent of the nonjury trials. This figure may be misleading, however, as someone other than the injured party is frequently the plaintiff in nonjury trials.

In terms of the relation between the disposition of the case and the type of defect, plaintiffs prevail more frequently in manufacturing defect cases than in design defect cases. While the plaintiff prevailed in 58 percent of the manufacturing defect cases, the defendant prevailed in 54 percent of the design defect cases. The defendant also won 51 percent of the failure to warn cases.

The trend of disposition shows a slight move toward the plaintiff in the more recent cases. While the defendant prevailed in 51 percent of the cases in the 1965-70 period, the plaintiff won 53 percent of the cases in the 1971-76 period.

Statutory Limits on Recovery

Of the entire sample, only one case involved a statute that placed limitations on the recovery by a prevailing plaintiff. California's wrongful death statute precludes recovery for pain and suffering.

Damages

Data involving damages were extracted only from those cases in which the plaintiff ultimately prevailed. If a verdict for the plaintiff was reversed on appeal, for example, the damages data were not considered. Information on damages was provided in

157 of the cases in which the plaintiff prevailed. Very few of these cases, however, broke down the damages by type. No meaningful figures can be offered, for example, on damages awarded for pain and suffering. The average damage award in the 157 cases was \$181,401. The trend is clearly in the direction of recovery of greater damages by injured parties. While the average damage award was \$104,202 in the 1965-70 period, the average award in the 1971-76 period was \$221,514 (see Table II-11). Again, this finding agrees with the Illinois Jury Verdict Report, which showed a significant recent increase in damage awards. When broken down by product class, the greatest amounts of damages were recovered in cases involving machinery and automobiles.

Damages on Appeal

Of the 58 cases where the amount of damages was at issue on appeal, the award was affirmed in 44 cases and reduced in six cases. In eight cases, the issue was remanded to a trial court for disposition.

Findings: The individual sample states

The Forum: State or Federal

All states, with the notable exception of Pennsylvania, indicated a consistent pattern of high incidence of state court cases. In Pennsylvania, more cases were decided in the Federal court than in the state court (see Table II-12).

Year of Decision

Although all states showed an increase in cases decided from the 1965-70 period to the 1971-76 period, some states indicated faster growth than others. While California showed only a 16 percent increase and Arizona only a 25 percent increase, New Jersey showed a 211 percent increase and Wisconsin a 167 percent increase (see Table II-13).

Work-Related Injuries

The only states where more work-related than non-work-related cases appeared were the highly industrialized states of Illinois and Pennsylvania, along with Wisconsin. California and New Jersey were the states which showed the highest percentages of non-work-related injuries (see Table II-14).

Disposition

Plaintiffs were most successful in cases in the States of California and Texas. While most states showed a fairly even split between plaintiffs and defendants, the plaintiff prevailed in 58 percent of the California cases which were decided on the merits, and in 63 percent of the Texas cases which were decided on the merits. Of the states in which there was a substantial number of cases in the sample, the defendant was most successful in Illinois, where it prevailed in 56 percent of the cases decided on the merits (see Table II-15). Thus, the Illinois Jury Verdict Report is not substantially in conflict with the results obtained here.

Damages

Of the five states--California, Illinois, New York, Pennsylvania, and Texas--which provided a substantial number of cases where damage awards were stated, the highest damages were awarded in California, followed by Texas. The lowest awards were made, on the average, in Illinois. Insufficient numbers of cases in the Arizona, New Jersey, and Wisconsin samples did not reveal the pertinent damages information necessary to draw valid conclusions regarding damage awards in those states. The damages data are shown in Table II-16). It is interesting to note that, of the five sample states for which sufficient data were available, the highest awards were made in those states--California and Texas--where the plaintiff most often prevails, and that the lowest awards were made in Illinois, where the defendant most often prevails.

NOTES TO CHAPTER II

¹Prosser, "The Fall of the Citadel (Strict Liability to the Consumer)," 50 Minn. L. Rev. 791 (1966).

²32 N.J. 358, 161 A.2d 69 (1960).

³59 Cal. 2d 57, 377 P.2d 897 (1963).

⁴Prosser, supra note 1, 50 Minn. L. Rev. at 803.

⁵See Kiely, "The Art of the Neglected Obvious in Products Liability Cases: Some Thoughts on Llewellyn's The Common Law Tradition," 24 DePaul L. Rev. 914 (1975); Wade, "On the Nature of Strict Liability for Products," 44 Miss. L.J. 825 (1973); Keeton, "Product Liability and the Meaning of Defect," 5 St. Mary's L.J. 30 (1973); Hoenig, "Product Designs and Strict Tort Liability: Is There a Better Approach," 8 S.W.U. L. Rev. 109 (1976); Green, "Strict Liability under Sec.s 402A and 402B: A Decade of Litigation," 54 Tex. L. Rev. 1185 (1976).

⁶See Kiely, supra note 5; Wade, supra note 5; Keeton, supra note 5.

⁷See Wade, supra note 5; Keeton, supra note 5; Green, supra note 5.

⁸See Schwartz, Comparative Negligence (1974).

⁹See Klemme, "The Enterprise Liability Theory of Torts," 47 U. Colo. L. Rev. 153 (1976).

¹⁰Hoenig, "Product Designs and Strict Tort Liability: Is There a Better Approach?"; 8 Sw. U.L. Rev. 109, 111 (1976) (footnote omitted).

¹¹59 Cal. 2d 57, 377 P.2d 897 (1963).

¹²377 P.2d at 900.

¹³See, e.g., Jiminez v. Sears, Roebuck & Co., 4 Cal. 3d 379, 482 P.2d 681 (1971); Pike v. Frank G. Hough Co., 2 Cal. 3d 465, 467 P.2d 229 (1970).

¹⁴8 Cal. 3d 121, 501 P.2d 1153 (1972).

¹⁵See Beron v. Kramer-Trenton Co., 402 F. Supp. 1268 (E.D. Pa. 1975).

¹⁶See Kirkland v. General Motors Corp., 521 P.2d 1353 (Okla. 1974); Phillips v. Kimwood Machine Co., 269 Ore. 485, 525 P.2d

1033 (1974); Turner v. General Motors Corp., 514 S.W. 2d 497 (Tex. Civ. App. 1974).

¹⁷Seattle-First National Bank v. Tabert, 86 Wash. 2d 145, 542 P.2d 774 (1975).

¹⁸Phillips v. Kimwood Machine Co., supra note 7.

¹⁹See Reyes v. Wyeth Laboratories, 498 F.2d 1264 (5th Cir. 1974) (applying Texas law).

²⁰See, e.g., Polk v. Ford Motor Co., 529 F.2d 259 (8th Cir.) (applying Missouri law); O.S. Stapley Co. v. Miller, 103 Ariz. 556, 447 P.2d 248 (1968); West v. Caterpillar Tractor Co. 336 So. 2d 80 (Fla. 1976); Suvada v. White Motor Co., 32 Ill. 2d 612, 210 N.E.2d 182 (1965).

²¹Dippel v. Sciano, 37 Wis. 2d 443, 155 N.W.2d 55 (1967).

²²Codling v. Paglia, 32 N.Y.2d 330, 345 N.Y.S.2d 461 (1973).

²³See Micallef v. Miehle Co., Division of Miehle-Goss-Dexter, Inc., 39 N.Y.2d 376, 384 N.Y.S.2d 115 (1976).

²⁴Id.

²⁵Hoppe v. Midwest Conveyor Co., 485 F.2d 1196 (8th Cir. 1973) (applying Missouri law); Dorsey v. Yoder Co., 331 F. Supp. 753 (E.D. Pa. 1971), aff'd, 474 F.2d 1339 (3d Cir. 1973); Cronin v. J.B.E. Olson Corp., supra note 5; Balido v. Improved Machinery, Inc., 29 Cal. App. 3d 633, 105 Cal. Rptr. 890 (1973).

²⁶See Wade, "On the Nature of Strict Liability for Products," 44 Miss. L.J. 825 (1973).

²⁷See, e.g., Schenebeck v. Sterling Drug, 423 F.2d 919 (8th Cir. 1970) (applying Louisiana law); Garst v. General Motors Corp., 207 Kan. 2, 484 P.2d 47 (1971); Micallef v. Miehle Co., Division of Miehle-Goss-Dexter, Inc., supra note 14.

²⁸Keeton, "Products Liability and the Meaning of Defect," 5 St. Mary's L.J. 30, 39 (1973).

²⁹Karjala v. Johns-Manville Products Corp., 523 F.2d 155 (8th Cir. 1975) (applying Minnesota law); Borel v. Fibreboard Paper Products Corp., 493 F.2d 1076 (5th Cir. 1973), cert. denied, 419 U.S. 869 (1974); Christofferson v. Kaiser Foundation Hospitals, 15 Cal. App. 3d 75, 92 Cal. Rptr. 825 (1971); Jones v. Hittle Service, Inc., 219 Kan. 627, 549 P.2d 1383 (1976); Cunningham v. Charles Pfizer & Co., 532 P.2d 1377 (Okla. 1974).

³⁰Phillips v. Kimwood Machine Co., supra note 7.

- ³¹Byrns v. Riddell, Inc., 550 P.2d 1065 (Ariz. 1976).
- ³²Dorsey v. Yoder Co., supra note 16.
- ³³Wade, supra note 17, 44 Miss. L. J. at 837-38.
- ³⁴Restatement (Second) of Torts Sec. 402A, comment i.
- ³⁵See, e.g., Sherrill v. Royal Industries, Inc., 526 F.2d 507 (8th Cir. 1975) (applying Nebraska law); Karjala v. Johns-Manville Products Corp., supra note 20; Carsrell v. Altec Industries, Inc., 335 So. 2d 128 (Ala. 1976).
- ³⁶See, e.g., Seattle-First National Bank v. Tabert, supra note 8.
- ³⁷See, e.g., Burton v. L.O. Smith Foundry Products Co., 529 F.2d 108 (7th Cir. 1976) (applying Indiana law); Sherrill v. Royal Industries, Inc., supra note 26.
- ³⁸See, e.g., Davis v. Fox River Tractor Co., 518 F.2d 481 (10th Cir. 1975) (applying Oklahoma law); Pike v. Frank G. Hough Co., supra note 4; Casey v. Gifford Wood Co., 61 Mich. App. 208, 232 N.W.2d 360 (1975); Palmer v. Massey-Ferguson, Inc., 3 Wash. App. 508, 476 P.2d 713 (1970).
- ³⁹301 N.Y. 468, 95 N.E.2d 802 (1950). Campo was overruled by Micallef v. Miehle Co., Division of Miehle-Goss-Dexter Inc., supra note 14.
- ⁴⁰Dorsey v. Yoder Co., supra note 16, 331 F. Supp. at 759.
- ⁴¹The T.J. Hooper, 60 F.2d 737 (2d Cir. 1932); Hall v. E.I. du Pont de Nemours & Co., Inc., 345 F. Supp. 353 (E.D.N.Y. 1972); Ford Motor Co. v. Thomas, 231 So. 2d 88 (Ala. 1970); Hill v. Husky Briquetting, Inc., 54 Mich. App. 17, 220 N.W.2d 137, aff'd, 393 Mich. 136, 223 N.W.2d 290 (1974).
- ⁴²Cunningham v. MacNeal Memorial Hospital, 47 Ill. 2d 443, 266 N.E.2d 897 (1970); Gelsumino v. E.W. Bliss Co., 10 Ill. App. 3d 604, 295 N.E.2d 110 (1973).
- ⁴³Stanfield v. Medalist Industries, Inc., 34 Ill. App. 3d 635, 340 N.E.2d 276 (1975).
- ⁴⁴See, e.g., Ulrich v. Kasco Abrasives Co., 532 S.W.3d 197 (Ky. 1976); Kuisis v. Baldwin-Lima-Hamilton Corp., 457 Pa. 321, 319 A.2d 914 (1974).
- ⁴⁵Id.
- ⁴⁶Hoenig, supra note 1.

⁴⁷Henderson, "Design Defect Litigation Revisited," 61 Cornell L. Rev. 541 (1976).

⁴⁸Twerski et al., "The Use and Abuse of Warnings in Products Liability--Design Defect Litigation Comes of Age," 61 Cornell L. Rev. 495 (1976).

⁴⁹Sterling Drug, Inc. v. Yarrow, 408 F.2d 978 (8th Cir. 1969) (applying South Dakota law); Ghera v. Ford Motor Co., 246 Cal. App. 2d 639, 55 Cal. Rptr. 94 (1966); Restatement (Second) of Torts Sec. 388 (1965).

⁵⁰Basko v. Sterling Drug, Inc., 416 F.2d 417 (2d Cir. 1969) (applying Connecticut law); Cannifax v. Hercules Powder Co., 237 Cal. App. 2d 44, 46 Cal. Rptr. 552 (1965); Restatement (Second) of Torts Sec. 402A.

⁵¹Davis v. Wyeth Laboratories, Inc., 399 F.2d 121 (9th Cir. 1968) (applying Montana law).

⁵²Walsh v. National Seating Co., 411 F. Supp. 564, 570 (D. Mass. 1976).

⁵³See, e.g., Jackson v. Coast Paint & Lacquer Co., 499 F.2d 809 (9th Cir. 1974) (applying Montana law); Basko v. Sterling Drug, Inc., supra note 2; Barth v. B.F. Goodrich Tire Co., 265 Cal. App. 2d 228, 71 Cal. Rptr. 306 (1968). But see Hasson v. Ford Motor Co., 51 Cal. App. 3d 104, 123 Cal. Rptr. 798 (1975).

⁵⁴See Annot., "Failure to Warn as Basis of Liability Under Doctrine of Strict Liability in Tort," 53 A.L.R. 3d 239, Sec. 2[b] (1973); Noel, "Products Defective Because of Inadequate Directions or Warnings," 23 S.W.L.J. 256, 260 (1969).

⁵⁵See, e.g., Wagner v. Larsen, 257 Iowa 1202, 136 N.W.2d 312 (1965); Penn v. Inferno Manufacturing Corp., 199 So. 2d 210 (La. App.), aff'd, 215 La. 27, 202 So. 2d 649 (1967).

⁵⁶See, e.g., Tinnerholm v. Parke-Davis & Co., 285 F. Supp. 432 (S.D.N.Y. 1968), aff'd, 411 F.2d 48 (2d Cir. 1969) (applying New York law).

⁵⁷Basko v. Sterling Drug, Inc., supra note 2; Davis v. Wyeth Laboratories, supra note 3.

⁵⁸Basko v. Sterling Drug, Inc., supra note 2, 416 F.2d at 427.

⁵⁹Sterling Drug, Inc. v. Yarrow, supra note 1, 408 F.2d at 993.

⁶⁰Incollingo v. Ewing, 444 Pa. 263, 282, A.2d 206 (1971).

- ⁶¹Jackson v. Coast Paint & Lacquer Co., supra note 5; Phillips v. Kimwood Machine Co., 269 Ore. 485, 525 P.2d 1033 (1974).
- ⁶²Phillips v. Kimwood Machine Co., supra note 13, 525 P.2d at 1039.
- ⁶³Restatement (Second) of Torts Sec. 402A, comment j (1965).
- ⁶⁴Restatement (Second) of Torts Sec. 402A, comment h (1965).
- ⁶⁵Hamilton v. Hardy, 549 P.2d 1099 (Colo. App. 1976); Cunningham v. Charles Pfizer & Co., 532 P.2d 1377 (Okla. 1974); Phillips v. Kimwood Machine Co., supra note 13.
- ⁶⁶Davis v. Wyeth Laboratories, Inc., supra note 3.
- ⁶⁷Hall v. E.I. du Pont de Nemours & Co., 345 F. Supp. 353 (E.D.N.Y. 1972); Cannifax v. Hercules Powder Co., supra note 2.
- ⁶⁸McCormack v. Hanksraft Co., 278 Minn. 322, 154 N.W.2d 488 (1967).
- ⁶⁹Mountain v. Procter & Gamble Co., 312 F. Supp. 534 (D. Wis. 1970); Alberto-Culver Co. v. Morgan, 444 S.W.2d 770 (Tex. Civ. App. 1969).
- ⁷⁰2 Frumer & Friedman, Products Liability Sec. 8.03[1] at 161 (1976).
- ⁷¹See, e.g., Basko v. Sterling Drug, Inc., supra note 2.
- ⁷²Barnes v. Litton Industrial Products, 409 F. Supp. 1353 (E.D. Va. 1976).
- ⁷³Kidwell, "The Duty to Warn: A Description of the Model of Decision," 53 Tex. L. Rev. 1375, 1403 (1975).
- ⁷⁴See, e.g., D'Arienzo v. Clairol, Inc., 125 N.J. Super. 224, 310 A.2d 106 (1973); Perma-Strate Co. v. Gemus, 58 Tenn. App. 325, 430 S.W.2d 665 (1968).
- ⁷⁵See, e.g., Casetta v. United States Rubber Co., 260 Cal. App. 2d 792, 67 Cal. Rptr. 645 (1968).
- ⁷⁶See, e.g., Davis v. Wyeth Laboratories, Inc., supra note 3; Reyes v. Wyeth Laboratories, Inc., 498 F.2d 1264 (5th Cir.), cert. denied, 419 U.S. 1096 (1974) (applying Texas law).
- ⁷⁷See, e.g., Kaempfe v. Lehn & Fink Products Corp., 21 App. Div. 2d 197, 249 N.Y.S.2d 840 (1964); Alberto-Culver Co. v. Morgan, supra note 21.

⁷⁸See Kidwell, supra note 25.

⁷⁹See, e.g., Posey v. Clark Equipment Co., 409 F.2d 560 (7th Cir. 1969), cert. denied, 396 U.S. 940 (1969) (applying Indiana law). See also 2 Hursh & Bailey, American Law of Products Liability 2d Sec. 8:15 at 181 (1974).

⁸⁰See, e.g., Vroman v. Sears, Roebuck & Co., 387 F.2d 732 (6th Cir. 1967) (applying Michigan law).

⁸¹Blim v. Newbury Industries, Inc., 443 F.2d 1126 (10th Cir. 1971); Haugen v. Minnesota Mining & Manufacturing Co., 550 P.2d 71 (Wash. App. 1976).

⁸²See, e.g., McCormack v. Hanksraft Co., supra note 20.

⁸³Jackson v. Coast Paint & Lacquer Co., supra note 5; Rindlisbaker v. Wilson, 95 Idaho 752, 519 P.2d 421 (1974).

⁸⁴Moran v. Faberge, Inc., 273 Md. 538, 332 A.2d 11 (1975).

⁸⁵Burton v. L.O. Smith Foundry Products Co., 529 F.2d 108 (7th Cir. 1976) (applying Indiana law) cf.; Martinez v. Dixie Carriers, Inc., 529 F.2d 457 (5th Cir. 1976) (applying Texas law) (Professional user).

⁸⁶Restatement (Second) of Torts Sec. 388 (1965).

⁸⁷Restatement (Second) of Torts Sec. 402A (1965).

⁸⁸Kidwell, supra note 25, 53 Tex. L. Rev. at 1399.

⁸⁹Jones v. Hittle Service, Inc., 549 P.2d 1383 (Kan. 1976); Morris v. Shell Oil Co., 467 S.W.2d 39 (Mo. 1971).

⁹⁰Jacobson v. Colorado Fuel & Iron Corp., 409 F.2d 1263 (9th Cir. 1969) (applying Montana law); Barnes v. Litton Industrial Products, supra note 24.

⁹¹Basko v. Sterling Drug, Inc., supra note 2.

⁹²Sterling Drug Co. v. Yarrow, supra note 1.

⁹³Davis v. Wyeth Laboratories, Inc., supra note 3.

⁹⁴McCormack v. Hanksraft, supra note 20.

⁹⁵Crocker v. Winthrop Laboratories, Division of Sterling Drug, Inc., 514 S.W.2d 429 (Tex. 1974).

⁹⁶Prosser, Handbook of the Law of Torts Sec. 67, at 453 (3d ed. 1964).

⁹⁷Id. at 452.

⁹⁸Campo v. Scofield, 301 N.Y. 468, 95 N.E.2d 802 (1950), overruled, Micallef v. Miehle Co., Division of Miehle-Goss Dexter, Inc., 39 N.Y.2d 376, 384 N.Y.S.2d 115 (1976).

⁹⁹Micallef v. Miehle Co., Division of Miehle-Goss Dexter, Inc., supra note 3. See also Pike v. Frank G. Hough Co., 2 Cal. 2d 465, 467 P.2d 229 (1970); Palmer v. Massey-Ferguson, 3 Wash. App. 508, 476 P.2d 713 (1970).

¹⁰⁰See Noel, "Defective Products: Abnormal Use, Contributory Negligence, and Assumption of Risk," 25 Vand. L. Rev. 93, 96 (1972).

¹⁰¹See, e.g., Morrow v. Trailmobile, Inc., 12 Ariz. App. 578, 473 P.2d 780 (1970); Patten v. Logemann Brothers Co., 263 Md. 364, 283 A.2d 567 (1971); Parsonson v. Construction Equipment Co., 386 Mich. 61, 191 N.W.2d 465 (1971); Jennings v. Tamaker Corp., 42 Mich. App. 310, 201 N.W.2d 654 (1972).

¹⁰²Restatement (Second) of Torts Sec. 402A, Comment n. See also Prosser, supra note 1, Sec. 78 at 539; Noel, supra note 5, 25 Vand. L. Rev. at 121.

¹⁰³See Thomas v. American Cystoscope Makers, Inc., 414 F. Supp. 255 (E.D. Pa. 1976).

¹⁰⁴See Heil Co. v. Grant, 534 S.W.2d 916 (Tex. Civ. App. 1976).

¹⁰⁵Berkebile v. Brantly Helicopter Corp., 337 A.2d 893, 901 (Pa. 1975).

¹⁰⁶Heil Co. v. Grant, supra note 9.

¹⁰⁷Sweeney v. Max A.R. Matthews & Co., 46 Ill. 2d 64, 264 N.E.2d 170 (1970).

¹⁰⁸See, e.g., Ford v. Harnischfeger Corp., 365 F. Supp. 602 (E.D. Pa. 1973) (applying Pennsylvania law).

¹⁰⁹Bartkewich v. Billinger, 432 Pa. 351, 247 A.2d 603 (1968).

¹¹⁰McDevitt v. Standard Oil Co., 391 F.2d 364 (5th Cir. 1968) (applying Texas law). See also Parzini v. Center Chemical Co., 234 Ga. 868, 218 S.E.2d 580 (1975); D'Arienzo v. Clairol, Inc., 125 N.J. Super. 224, 310 A.2d 106 (1973).

¹¹¹Collins v. Musgrave, 28 Ill. App. 3d 307, 328 N.E.2d 649 (1975).

¹¹²Henderson v. Ford Motor Co., 519 S.W.2d 87 (Tex. 1975).

¹¹³See Rhoads v. Service Machine Co., 329 F.2d 367 (E.D. Ark. 1971).

¹¹⁴Restatement (Second) of Torts Sec. 402A, Comment n. See also Twerski, "Restructuring Assumption of Risk in the Products Liability Era," 60 Iowa L. Rev. 1 (1974).

¹¹⁵Johnson v. Clark Equipment Co., 547 P.2d 132, 140 (Ore. 1976).

¹¹⁶See Henderson v. Ford Motor Co., supra note 17.

¹¹⁷See Erikson v. Sears, Roebuck & Co., 240 Cal. App. 2d 793, 50 Cal. Rptr. 143 (1966).

¹¹⁸Stewart v. Von Sollrig Hospital, Inc., 24 Ill. App. 3d 599, 321 N.E.2d 428 (1974).

¹¹⁹McCurter v. Norton Co., 263 Cal. App. 2d 402, 69 Cal. Rptr. 493 (1968).

¹²⁰Erickson v. Sears, Roebuck & Co., supra note 22. See also Thomas v. American Cystoscope Makers, Inc., supra note 8.

¹²¹General Motors Corp. v. Hopkins, 535 S.W.2d 880 (Tex. Civ. App. 1976). See also Edwards v. Sears, Roebuck & Co., 512 F.2d 276 (5th Cir. 1975) (applying Mississippi law).

¹²²See, e.g., Tucci v. Bossert, 385 N.Y.S.2d 328 (App. Div. 1976).

¹²³See Thomas v. American Cystoscope Makers, Inc., supra note 8.

¹²⁴See, e.g., Evans v. General Motors Corp., 359 F.2d 822 (7th Cir.), cert. denied, 385 U.S. 836 (1966) (applying Indiana law). See also Schemel v. General Motors Corp., 384 F.2d 802 (7th Cir. 1967) (applying Indiana law).

¹²⁵Larson v. General Motors Corp., 391 F.2d 495 (8th Cir. 1968) (applying Michigan law). See also Dyson v. General Motors Corp., 298 F. Supp. 1064 (E.D. Pa. 1969); Ellithorpe v. Ford Motor Co., 503 S.W.2d 516 (Tenn. 1973).

¹²⁶See, e.g., Dunham v. Vaughan, 86 Ill. App. 2d 315, 229 N.E.2d 684, aff'd, 42 Ill. 2d 339, 247 N.E.2d 401 (1967).

¹²⁷Findlay v. Copeland Lumber Co., 265 Ore. 300, 509 P.2d 28 (1973).

¹²⁸Holmgren v. Massey-Ferguson, Inc., 394 F. Supp. 910 (D.N.D. 1974), rev'd on other grounds, 516 F.2d 856 (8th Cir. 1975) (applying N.D. law).

¹²⁹See Cepeda v. Cumberland Engineering Co., 138 N.J. Super. 344, 351 A.2d 22 (App. Div. 1976); Bartkewich v. Billinger, supra note 14.

¹³⁰32 N.Y.2d 330, 298 N.E.2d 622 (1973).

¹³¹Micallef v. Miehle Co., Division of Miehle-Goss Dexter, Inc., supra note 3.

¹³²Stephan v. Sears, Roebuck & Co., 110 N.H. 248, 266 A.2d 855 (1970).

¹³³Dippel v. Sciano, 37 Wis. 2d 443, 155 N.W.2d 55 (1967).

¹³⁴Id.

¹³⁵See, e.g., Hagenbuch v. Snap-On-Tools Corp., 339 F. Supp. 676 (D.N.H. 1972).

¹³⁶West v. Caterpillar Tractor Co., 336 So. 2d 80 (Fla. 1976).

¹³⁷Kirkland v. General Motors Corp., 521 P.2d 1353 (Okla. 1974).

¹³⁸Schuh v. Fox River Tractor Co., 63 Wis. 2d 728, 218 N.W.2d 279 (1974).

¹³⁹Sun Valley Airlines, Inc. v. Avco-Lycoming Corp., 411 F. Supp. 598 (D. Idaho 1976).

¹⁴⁰Edwards v. Sears, Roebuck & Co., 512 F.2d 276 (5th Cir. 1975) (applying Mississippi law); see Gilbertson v. Tryco Manufacturing Co., Inc., 492 F.2d 958 (8th Cir. 1974) (applying Minnesota law); Chapman v. Brown, 198 F. Supp. 79 (D. Hawaii), aff'd, 304 F.2d 149 (9th Cir. 1962); Haney v. International Harvester Co., 294 Minn. 375, 201 N.W.2d 140 (1972); Etten v. Ava Truck Leasing, Inc., 53 N.J. 463, 251 A.2d 278 (1969); Ritter v. Narragansett Electric Co., 109 R.I. 176, 283 A.2d 255 (1971); Netzel v. State Sand & Gravel Co., 51 Wis. 2d 1, 186 N.W. 2d 258, 262 (1971).

¹⁴¹See Schwartz, "Strict Liability and Comparative Negligence," 42 Tenn. L. Rev. 171 (1974); Feinberg, "Applicability of a Comparative Negligence Defense in a Strict Products Liability Suit Based on Sec. 402A of the Restatement of Torts (2d) (Can Oil and Water Mix?)," 42 Ins. Counsel J. 39 (1975).

¹⁴²Kinard v. Coats Co., 553 P.2d 835 (Colo. App. 1976).

¹⁴³Strakos v. Gehring, 360 S.W.2d 787, 798 (Tex. 1962).

¹⁴⁴Kossifos v. Loudon Machinery, 22 Ill. App. 3d 587, 317 N.E.2d 749 (1974); Stanfield v. Medalist Industries, Inc., 17 Ill. App. 3d 996, 309 N.E.2d 104 (1974).

¹⁴⁵Symons v. Mueller Co., 526 F.2d 13 (10th Cir. 1975) (applying Kansas law).

¹⁴⁶Edwards v. E.I. du Pont de Nemours Co., 183 F.2d 165 (5th Cir. 1950) (applying Georgia law).

¹⁴⁷See Comment, "Another Look at Strict Liability: The Effect on Contribution among Tortfeasors," 79 Dickinson L. Rev. 125 (1974).

¹⁴⁸The 1939 version of the Uniform Contribution Among Tortfeasors Act has been adopted in 10 States. The 1955 U.C.A.T. Act has been adopted in 7.

¹⁴⁹Fenton v. McCrory Corp., 47 F.R.D. 260 (W.D. Pa. 1969).

¹⁵⁰See, e.g., Burke v. Skyclimber, 57 Ill. 2d 542, 316 N.E.2d 516 (1974); Beaumont v. Warner & Swasey Co., 36 App. Div 2d 894, 320 N.Y.S.2d 201 (1971); Wagner v. United Hoisting Co., 37 Misc. 2d 761, 234 N.Y.S.2d 819 (1962). See also Zeremski, "Expansion of Third Party Recovery: Common Law Indemnity, Contribution, Or?" 63 Ill. B.J. 684 (1975).

¹⁵¹See McClish v. Niagara Machine & Tool Works, 266 F. Supp. 987 (S.D. Ind. 1967); South Austin Drive-In Theatre v. Thomison, 421 S.W.2d 933 (Tex. Civ. App. 1967).

¹⁵²See, e.g., Vergott v. Deseret Pharmaceutical Co., 463 F.2d 12 (5th Cir. 1972); South Austin Drive-In Theatre v. Thomison, *supra* note 9; Bradford v. Bendix-Westinghouse Automotive Brake Co., 517 P.2d 406, (Colo. App. 1973); Williams v. Chrysler Motor Co., 271 So. 2d 551 (La. App. 1972); Lewis v. Amchem Products, Inc., 510 S.W.2d 46 (Mo. App. 1974); Heil Co v. Grant, 534 S.W.2d 916 (Tex. Civ. App. 1976).

¹⁵³Goldstein v. Compudyne Corp., 45 F.R.D. 467 (S.D.N.Y. 1968); Rekab, Inc. v. Frank Hubetz & Co., 261 Md. 141, 274 A.2d 107 (1971).

¹⁵⁴Comment, *supra* note 5, 79 Dickinson L. Rev. at 131.

¹⁵⁵See, e.g., American Auto Insurance Co. v. Molling, 239 Minn. 74, 57 N.W.2d 847 (1953).

¹⁵⁶White v. Texas Eastern Transmission Corp., 512 F.2d 486 (5th Cir. 1975) (applying Louisiana law); Prosky v. National Acme Co., 404 F. Supp. 852 (E.D. Mich. 1975); Jennings v. Franz Torwegge Machine Works, 347 F. Supp. 1288 (W.D. Va. 1972); Auld v. Globe Indemnity Co., 220 F. Supp. 96 (W.D. La. 1963); Howard

v. Wilson Concrete Co. 57 F.R.D. 8 (D. Mo. 1972); Schweizer v. Elox Division of Colt Industries, 133 N.J. Super. 297, 336 A.2d 73 (1975).

¹⁵⁷Schweizer v. Elox Division of Colt Industries, supra note 14, 336 A.2d at 79; Auld v. Globe Indemnity Co. supra note 14, 220 F. Supp. at 101.

¹⁵⁸Louisiana, Maine, Pennsylvania and Rhode Island, cited in Comment, supra note 5, 79 Dickinson L. Review at 131.

¹⁵⁹Maio v. Fahs, 339 Pa. 180, 14 A.2d 105 (1940).

¹⁶⁰Chamberlain v. Carborundum, 485 F.2d 31, 33 (3d Cir. 1973) (applying Pennsylvania law).

¹⁶¹See Kuziw v. Lake Engineering Co., 385 F. Supp. 827 (N.D. Ill. 1974). But see Kessler v. Bowie Machine Works, Inc., 501 F.2d 617 (8th Cir. 1974).

¹⁶²Carlson v. Smogard, 215 N.W.2d 615 (Minn. 1974). See also Hanley v. International Harvester, 294 Minn. 375, 201 N.W.2d 140 (1972).

¹⁶³Hanley v. International Harvester, supra note 20, 201 N.W. 2d at 144.

¹⁶⁴Vandermark v. Ford Motor Co., 61 Cal. 2d 256, 391 P.2d 168, 171-172 (1964).

¹⁶⁵21 Cal. App. 3d 694, 98 Cal. Rptr. 702 (1971).

¹⁶⁶98 Cal. Rptr. at 705-706.

¹⁶⁷Beckerman v. Walter J. Munro, Inc., 25 App. Div. 448, 266 N.Y.S.2d 996 (1966).

¹⁶⁸Duckworth v. Ford Motor Co., 320 F.2d 130 (3d Cir. 1963); Chapman v. General Motors Corp., 242 F. Supp. 94 (E.D. Pa. 1965); Barth v. G.P. Goodrich Tire Co., 15 Cal. App 3d 137, 92 Cal Rptr. 809 (1971); Ford Motor Co. v. Russell & Smith Ford Co., 474 S.W.2d 549 (Tex. Civ. App. 1971).

¹⁶⁹Compare McDonald v. Blue Jeans Corp., 183 F. Supp. 149 (S.D. N.Y. 1960) with Beckerman v. Walter J. Munro, Inc., 25 App. Div. 448, 266 N.Y.S.2d 996 (1966). See also Auld v. Globe Indemnity Co., 220 F. Supp. 96 (W.D. La. 1963).

¹⁷⁰Watz v. Zapata Off-Shore Co., 431 F.2d 100 (5th Cir. 1970) (applying Texas law).

¹⁷¹See, e.g., McPhee v. Oliver Tyrone Corp., 353 F. Supp. 601 (N.D. Miss. 1972).

¹⁷²See, e.g., Caruloff v. Emerson Radio & Phonograph Corp., 445 F.2d 873 (2d Cir. 1973) (applying New York law); Borg-Warner Corp v. White Motor Co., 344 F.2d 412 (5th Cir. 1965) (applying Texas law); Delaney v. Towmotor Corp., 339 F.2d 4 (2d Cir. 1964) (applying New York law).

¹⁷³See, e.g., Feinstein v. Greer Hydraulics, 457 S.W.2d 789 (Mo. 1970); Mixter v. Mack Trucks, Inc., 224 Pa. Super. 313, 308 A.2d 139 (1973).

¹⁷⁴American Radiator Co. and S.S. Corp v. Titan Valve Manufacutring Co., 246 F.2d 947 (6th Cir. 1957) (applying Ohio law); Wells v. Web Machinery, 20 Ill. App. 3d 545, 315 N.E.2d 301 (1974); Monahan v. Ford Motor Co., 231 N.Y.S. 2d 187 (Sup. Ct. 1962); Reefer Queene Co. v. Marine Construction & Design Co., 73 Wash. 2d 774, 440 P.2d 453 (1968).

¹⁷⁵Tromza v. Tecumseh Products Co., 378 F.2d 601 (3d Cir. 1967) (applying Pennsylvania law); Burbage v. Boiler Engineering & Supply Co., 433 Pa. 319, 249 A.2d 563 (1969).

¹⁷⁶Hill v. Wilmington Chemical Corp., 279 Minn. 336, 156 N.W.2d 898, 904 (1968).

¹⁷⁷DeYoung v. Kerr Chemicals, Inc., 21 Cal. App. 3d 1010, 99 Cal. Rptr. 162, 164 (1971); B.K. Sweeney Co. v. McQuay Norris Manufacturing Co., 489 P.2d 356 (Colo. App. 1971); Sorenson v. Safety-Plate, Inc., 216 N.W.2d 859, 862-63 (Minn. 1974).

¹⁷⁸Liberty Mutual Insurance Co. v. Williams Machine & Tool Co., 62 Ill. 2d 77, 338 N.E.2d 857, 860 (Ill. 1975).

¹⁷⁹See, e.g., Watz v. Zapata Off-Shore Co., supra note 28.

¹⁸⁰12 Uniform Laws Annotated 57 (Master Ed. 1975).

¹⁸¹Annot., "Contribution based on relative fault," 53 A.L.R.3d 184, 191 (1973).

¹⁸²12 Uniform Laws Annotated 87 (Master Ed. 1975).

¹⁸³Fehlhaber v. Indian Trails, Inc., 45 F.R.D 285 (D. Del. 1968); Burks Motors, Inc. v. International Harvester Co., 250 Ark. 29, 466 S.W.2d 907, reh. den., 250 Ark. 641, 466 S.W.2d 943 (1971); Little v. Miles, 213 Ark. 725, 212 S.W.2d 935 (1948); Mitchell v. Branch, 45 Hawaii 128, 363 P.2d 969, 978 (1961); Degen v. Bayman, 200 N.W.2d 134 (S.D. 1972).

¹⁸⁴Nelson v. L. & L. Press Corp., 223 N.W.2d 607 (Wis. 1974); Pachowitz v. Milwaukee and Suburban Transport Co., 56 Wis. 2d 383, 202 N.W.2d 268 (1972); Dippel v. Sciano, 37 Wis. 2d 443, 155 N.W.2d 55, 64-65 (1967); Bielski v. Schulze, 16 Wis. 2d 1, 114 N.W.2d 105 (1962). See also Jensvold, "A Modern Approach to Loss

Allocation Among Tortfeasors in Products Liability Cases," 1974 Ins. L.J. 591, 58 Minn. L. Rev. 723, 747 ff. (1974).

¹⁸⁵Packard v. Whitten, 274 A.2d 169, 180 (Me. 1971).

¹⁸⁶Cyr v. B. Offen & Co., 501 F.2d 1145 (1st Cir. 1974) (applying New Hampshire law).

¹⁸⁷Bjorklund v. Hantz, 208 N.W.2d 722 (Minn. 1973).

¹⁸⁸Jensvold, supra note 42.

¹⁸⁹30 N.Y.2d 143, 331 N.Y.S.2d 382 (1972).

¹⁹⁰331 N.Y.S.2d at 386-387.

¹⁹¹N.Y.C.P.L.R. Sec. 1402 (McKinney's Supp. 1976).

¹⁹²Hughes v. Ataka America, Inc., 48 App. Div 808, 369 N.Y.S.2d 723 (1975).

¹⁹³Walsh v. Ford Motor Co., 70 Misc. 2d 1031, 335 N.Y.S.2d 110 (1972).

¹⁹⁴Coons v. Washington Mirror Works, Inc., 344 F. Supp. 653 (S.D.N.Y. 1972) rev'd on other grounds, 477 F.2d 864 (2d Cir. 1973).

¹⁹⁵N.Y. Gen. Obligations Law Sec. 15-108 (McKinney's 1976).

¹⁹⁶Langford v. Chrysler Motors Corp., 513 F.2d 1121 (2d Cir. 1975) (applying New York law).

¹⁹⁷Morales v. Moss, 44 App. Div 2d 687, 355 N.Y.S.2d 456 (1974).

¹⁹⁸Gomes v. Brodhurst, 394 F.2d 465 (3d Cir. 1967).

¹⁹⁹Hoffman v. Jones, 280 So. 2d 431 (Fla. 1973).

²⁰⁰Li v. Yellow Cab Co., 119 Cal. Rptr. 858, 532 P.2d 1226 (1975).

²⁰¹E.B. Wills Co. v. Superior Court, 128 Cal. Rptr. 541, 544 (Cal. App. 1976).

²⁰²Gertz v. Campbell, 55 Ill. 2d 84, 302 N.E.2d 40 (1973).

²⁰³Zaremski, "Expansion of Third Party Recovery: Common Law Indemnity, Contribution, Or?", 63 Ill. B.J. 684 (1975).

²⁰⁴Curtis v. Murphy Elevator Co., 407 F. Supp 940 (D. Tenn. 1976).

²⁰⁵Ruvolvo v. U.S. Steel Corp., 139 N.J. Super. 578, 354 A.2d 685 (1976).

²⁰⁶1A. Larson, The Law of Workmen's Compensation, Sec. 1.10 (1972).

²⁰⁷Larson, supra note 1, Sec. 57.10.

²⁰⁸Id. Sec. 61.20.

²⁰⁹2A. Larson, supra note 1, Sec. 67.21.

²¹⁰Id. Sec. 71.10.

²¹¹See Restatement (Second) of Torts Sec. 388 (1965).

²¹²See, e.g., McDaniel v. Williams, 23 App. Div. 2d 729, 257 N.Y.S.2d 702 (1965).

²¹³Lindenberg v. Folson, 138 N.W.2d 573 (N.D. 1965).

²¹⁴197 N.W.2d 202 (Iowa 1972).

²¹⁵See, e.g., Stief v. J.A. Sexauer Manufacturing Co., 380 F.2d 453 (2d Cir. 1967), cert. denied, 389 U.S. 897 (1967) (applying New York law).

²¹⁶Martinez v. Dixie Carriers, Inc., 529 F.2d 457 (5th Cir. 1976) (applying Texas law); Littlehale v. E.I. du Pont de Nemours and Co., 380 F.2d 274 (2d Cir. 1967) (applying New York law).

²¹⁷Madrid v. Mine Safety Appliance Co., 486 F.2d 856 (10th Cir. 1973) (applying New Mexico law); Parris v. M.A. Bruder & Sons, Inc., 261 F. Supp. 406 (E.D. Pa. 1966).

²¹⁸Sarnoff v. Charles Schad, Inc., 49 Misc. 2d 1059, 269 N.Y.S.2d 22 (1966) and 50 Misc. 2d 418, 270 N.Y.S.2d 763 (1966), modified, 28 App. Div. 2d 921, 282 N.Y.S.2d 967 (1967), aff'd, 22 N.Y.2d 180, 292 N.Y.S.2d 93, 239 N.E.2d 194 (1968).

²¹⁹Clark v. Rental Equipment Co., 300 Minn. 420, 220 N.W.2d 507 (1974).

²²⁰Note, 86 Harv. L. Rev. 923, 930-31, (1973).

²²¹Collins v. Ridge Tool Co., 520 F.2d 591 (7th Cir. 1975), cert. denied.

²²²301 N.Y. 468, 95 N.E.2d 802 (1950).

²²³Micallef v. Miehle Company, Division of Miehle-Goss Dexter, Inc., 39 N.Y. 2d 376, 384 N.Y.S.2d 115 (1976).

²²⁴Compare Rice v. Hyster Co., 540 P.2d 989 (Ore. 1975), with Lemberger v. Koehring Co., 63 Wis. 2d 210, 216 N.W.2d 542 (1974).

²²⁵Walsh v. Miehle-Goss Dexter, Inc., 378 F.2d 409 (3d Cir. 1967) (applying Pennsylvania law); Penn. v. Inferno Manufacturing Co., 199 So. 2d 210 (La. App. 1967), writ refused, 251 La. 27, 202 So. 2d 649 (1967). But see Reed v. Carlyle & Martin, Inc., 214 Va. 592, 202 S.E. 2d 874 (1974), cert. denied, 419 U.S. 859 (1974).

²²⁶Salladin v. Tellis, 247 S.C. 267, 146 S.E.2d 875 (1966).

²²⁷Restatement (Second) of Torts Sec. 402A, explanatory notes, comment 1 at 354 (1965).

²²⁸457 F.2d 1262 (9th Cir. 1972), cert. denied, 409 U.S. 876 (1972) (applying Oregon law).

²²⁹See, e.g., Kopera v. Fisher Scientific Co., 23 App. Div 2d 851, 259 N.Y.S.2d 165 (1965).

²³⁰Wagner v. Larson, 257 Iowa 1202, 136 N.W.2d 312 (1965).

²³¹Brown v. Quick Mix Co., Division of Koehring Co., 75 Wash. 2d 833, 454 P.2d 205 (1969).

²³²Hill v. Clark Equipment Co., 42 Mich. App. 405, 202 N.W.2d 530 (1972) (applying Alabama law).

²³³Weaver v. Ralston Motor Hotel, Inc., 135 Ga. App. 536, 218 S.E.2d 260 (1975).

²³⁴Powell v. E.W. Bliss Co., 346 F. Supp. 819 (W.D. Mich. 1972).

²³⁵Rhoads v. Service Machine Co., 329 F. Supp. 367, 381 (E.D. Ark. 1971).

²³⁶Walsh v. Miehle-Goss Dexter, Inc., supra note 20.

²³⁷Supra note 27.

²³⁸202 N.W.2d at 536.

²³⁹Johnson v. Clark Equipment Co., 547 P.2d 132, 140-141 (Ore. 1976).

²⁴⁰See Merced v. Auto Park Company, Inc., 533 F.2d 71, 80 (2d Cir. 1976) (applying New York law); and Brown v. Quick Mix Co., Division of Koehring Co., supra note 26.

²⁴¹See Borel v. Fibreboard Paper Products Corp., 493 F.2d 1076 (5th Cir. 1973), cert. denied, 419 U.S. 869 (1974).

²⁴²See Fore v. Vermeer Manufacturing Co., 7 Ill. App 3d 346, 287 N.E.2d 526 (1972); and Johnson v. Benjamin Moore & Co., 396 F. Supp. 362 (W.D. La. 1975).

²⁴³Restatement (Second) of Torts Sec. 388 (1965).

²⁴⁴Compare Weekes v. Michigan Chrome & Chemical Co., 352 F.2d 603 (6th Cir. 1965) (applying New Jersey and Michigan law); and Eck v. E.I. du Pont de Nemours and Co., 393 F.2d 197 (7th Cir. 1968) (applying Indiana law).

²⁴⁵See, e.g., West v. Broderick and Bascom Rope Co., supra note 9.

²⁴⁶See, e.g., Younger v. Dow Corning Corp., 202 Kan. 674, 451 P.2d 177 (1969).

²⁴⁷Jasper v. Skyhook Corp., 89 N.M. 98, 547 P.2d 1140 (1976).

²⁴⁸Bexira v. Havir Manufacturing Corp., 60 N.J. 402, 290 A.2d 281 (1972).

²⁴⁹Rios v. Niagara Machine & Tool Works, 59 Ill. 2d 79, 319 N.E.2d 232 (1974).

²⁵⁰Garrison v. Orangeville Manufacturing Co., 492 F.2d 346 (6th Cir. 1974) (applying Kentucky law).

²⁵¹Restatement (Second) of Torts, Sec. 402A, explanatory notes, comment p at 357 (1965).

TABLE II-1.--Federal District Courts product liability cases: total breakdown

	<u>FY1974</u>	<u>FY1975</u>	<u>FY1976</u>
Contract actions	-	278	363
Torts to land	-	42	46
Torts to personal property	-	173	271
Personal injury by airline	-	301	160
Personal injury by marine	-	46	140
Personal injury by motor vehicle	-	438	385
Personal injury--all other	-	1,608	2,331
Total product liability cases	1,579	2,886	3,696

TABLE II-2.--Federal District Courts product liability cases--breakdown by percentage

	<u>FY1975</u>	<u>FY1976</u>
Contract actions: percentage of total	9.6	9.8
Torts to property: percentage of total	7.4	8.6
Personal injury: percentage of total	82.9	81.6

TABLE II-3.--Federal District Courts product liability cases--comparison to total civil cases

	<u>FY1974</u>	<u>FY1975</u>	<u>FY1976</u>
Total product liability cases commenced	1,579	2,886	3,696
Total civil cases commenced	103,530	117,320	130,597
Product liability percentage	1.5	2.5	2.8

TABLE II-4.--Federal District Courts product liability cases--personal injury torts

	<u>FY1975</u>	<u>FY1976</u>	<u>Percentage change</u>
Total personal injury torts	21,221	21,202	-0.1
Product liability total	2,393	3,016	+26.0
Percentage	11.3	14.2	-

TABLE II-5.--Connecticut Court of Common Pleas¹--total
product liability breakdown

<u>Category</u> <u>by year</u>	<u>On the</u> <u>docket</u>	<u>Pending</u> ² <u>Assigned for trial</u>		<u>On the</u> <u>docket</u>	<u>New Entries</u> ² <u>Assigned for trial</u>		<u>From the</u> <u>docket</u>	<u>Disposed of</u> ³ <u>Tried</u>	
		<u>Nonjury</u>	<u>Jury</u>		<u>Nonjury</u>	<u>Jury</u>		<u>Nonjury</u>	<u>Jury</u>
P.L. torts other than vehicular--									
1974 ¹	116	11	64	41	3	27	48	6	29
1975	126	8	73	62	6	24	43	6	26
1976	154	7	77	69	18	29	98	6	57
Total torts other than vehicular--									
1974	2,778	376	1,459	1,129	212	630	1,305	223	794
1975	2,852	367	1,450	1,737	255	663	1,189	175	742
1976	3,626	444	1,549	1,957	509	790	2,027	328	989
P.L. vehicular torts--									
1974	48	4	28	13	1	7	18	1	14
1975	44	4	21	19	8	2	13	1	8
1976	56	9	23	14	6	8	27	3	14
Total vehicular torts--									
1974	4,499	399	2,548	1,749	230	1,030	2,427	279	1,535
1975	4,095	362	2,248	2,685	273	910	1,905	197	1,173
1976	5,158	453	2,238	2,835	761	966	3,278	484	1,445
Total civil cases--									
1974	13,440	3,074	4,289	7,609	1,828	1,808	7,930	1,946	2,467
1975	13,999	3,004	4,094	23,901 ⁴	2,587	1,856	11,354 ⁴	1,600	2,062
1976	28,092	4,171	4,435	30,798	5,887	2,161	26,700	3,516	2,793

¹The reporting period extends from September 1 to August 31 for each year.

²Because actions entered on the docket are usually not assigned a trial date at the time of filing, the figure in the left column (on the docket) generally will not equal the sum of the figures in the middle and the right columns.

³Because some actions are disposed of by dismissal (following, for example, a settlement between the parties, or a failure to prosecute the claim), the figure in the left column (from the docket) generally will not equal the sum of the figures in the middle and right columns.

⁴The circuit court docket was added in here pursuant to a court system reorganization.

TABLE II-6.--Connecticut Superior Court¹--total
product liability breakdown

<u>Category</u> <u>by year</u>	<u>On the</u> <u>docket</u>	<u>Pending</u> ² <u>Assigned for trial</u>		<u>On the</u> <u>docket</u>	<u>New entries</u> ² <u>Assigned for trial</u>		<u>From the</u> <u>docket</u>	<u>Disposed of</u> ³ <u>Tried</u>	
		<u>Nonjury</u>	<u>Jury</u>		<u>Nonjury</u>	<u>Jury</u>		<u>Nonjury</u>	<u>Jury</u>
P.L. torts other than vehicular--									
1974 ¹	226	18	130	58	13	35	61	7	44
1975	221	22	122	90	4	55	57	7	38
1976	254	14	143	96	9	53	55	9	33
Total torts other than vehicular--									
1974	4,297	353	2,616	1,353	169	851	1,280	129	869
1975	4,315	336	2,594	1,702	177	1,039	1,379	127	969
1976	4,641	359	2,686	1,899	186	1,111	1,531	170	998
P.L. vehicular torts--									
1974	60	-	37	25	1	11	13	1	8
1975	73	-	40	26	2	15	19	-	14
1976	78	2	39	35	1	20	22	-	18
Total vehicular torts--									
1974	7,127	399	4,676	2,686	243	1,855	2,511	197	1,740
1975	7,313	343	4,823	2,894	208	2,048	2,796	200	1,964
1976	7,417	302	4,889	3,062	165	2,106	2,908	157	1,977
Total civil cases--									
1974	29,665	4,235	7,731	23,170	4,975	2,931	20,583	4,843	2,763
1975	31,960	4,121	7,932	25,003	11,977	3,356	24,116	10,718	3,107
1976	32,829	3,316	8,183	25,793	2,830	3,476	24,995	2,615	3,176

¹The reporting period extends from September 1 to August 31 for each year.

²Because actions entered on the docket are usually not assigned a trial date at the time of filing, the figure in the left column (on the docket) generally will not equal the sum of the figures in the middle and right columns.

³Because some actions are disposed of by dismissal (following, for example, a settlement between the parties, or a failure to prosecute the claim), the figure in the left column (from the docket) generally will not equal the sum of the figures in the middle and right columns.

TABLE II-7.--Key statistical breakdown--total cases
for survey undertaken in Legal Study

Arizona	27
California	95
Illinois	137
New Jersey	37
New York	108
Pennsylvania	129
Texas	100
Wisconsin	22
Total cases	655

TABLE II-8.--Key statistical breakdown--trend: product class

<u>Product class cases</u>	<u>1965-70</u>	<u>1971-76</u>
Chemical	18	15
Containers	10	8
Machinery and tools	28	63
Recreational	11	11
Automobiles	54	138

TABLE II-9.--Key statistical breakdown--time interval
between year of manufacture and year of injury by
product class

<u>Years difference</u>	<u>Machinery</u>	<u>Automotive</u>
-	2	51
1	-	23
2	4	10
3	1	9
4	1	11
5	3	3
6	1	4
7	2	1
8	3	1
9	-	1
10 or more	11	3

TABLE II-10.--Key statistical breakdown: forum¹

	<u>Yes</u>	<u>No</u>	<u>Unidentified</u>
State of manufacture of the product	22	73	560
State of sale	178	8	469
State in which the injury occurred	346	31	278
Home state of the plaintiff	184	9	462
Corporate headquarters of the defendant	65	66	523

¹"Forum" refers to the state or federal court selected by plaintiff(s) for bringing the action.

TABLE II-11.--Key statistical breakdown--trend:
total damages awarded

<u>Total damage category</u>	<u>1965-70</u>	<u>1971-76</u>	<u>Total</u>
0-7,500	10	11	21
7,500-18,000	8	7	15
18,000-35,000	6	9	15
35,000-50,000	8	6	14
50,000-65,000	5	5	10
65,000-90,000	2	13	15
90,000-150,000	6	16	22
150,000-250,000	5	15	20
250,000+	5	20	25

TABLE II-12.--Key statistical breakdown--State or
Federal Court forum

<u>State</u>	<u>State Court</u>	<u>Federal Court</u>
Arizona	26	1
California	89	6
Illinois	115	22
New Jersey	34	3
New York	90	18
Pennsylvania	61	68
Texas	77	23
Wisconsin	17	5
Total	509	146

TABLE II-13.--Increase in number of
reported cases: 1965-70 v. 1971-76

<u>State</u>	<u>1965-70</u>	<u>1971-76</u>	<u>Percentage of</u> <u>increase</u>
Arizona	12	15	25
California	44	51	16
Illinois	49	88	80
New Jersey	9	28	211
New York	43	65	51
Pennsylvania	38	91	139
Texas	41	59	44
Wisconsin	6	16	167
Total	242	413	71

TABLE II-14.--Key statistical breakdown--work- and
non-work-related cases

<u>State</u>	<u>Work-</u> <u>related</u>	<u>Non-work-</u> <u>related</u>	<u>Indeterminable</u>
Arizona	13	13	1
California	33	55	7
Illinois	75	52	10
New Jersey	8	25	4
New York	41	47	20
Pennsylvania	60	50	19
Texas	41	46	13
Wisconsin	12	9	1
Total	283	297	75

TABLE II-15.--Key statistical breakdown--disposition

<u>State</u>	<u>Plaintiff prevails</u>	<u>Defendant prevails</u>	<u>Procedural bar</u>	<u>Case remanded</u>
Arizona	7	10	1	9
California	33	24	3	35
Illinois	41	53	3	40
New Jersey	11	11	-	15
New York	29	27	2	50
Pennsylvania	36	34	1	58
Texas	39	23	2	36
Wisconsin	4	7	0	11
Total	200	189	12	254

TABLE II-16.--Key statistical breakdown--damages

<u>State</u>	<u>Number of cases stating damages</u>	<u>Average award</u>
Arizona	5	\$ 66,200
California	26	271,558
Illinois	35	119,459
New Jersey	6	415,551*
New York	21	169,787
Pennsylvania	32	136,688
Texas	29	221,216
Wisconsin	3	7,050

The figures of damage awards in Arizona, New Jersey, and Wisconsin suffer from certain circumstances which tend to skew the data. This can be illustrated by looking at a New Jersey case. The original sample included the case of Huddell v. Levin, 395 F. Supp. 64 (D. N.J. 1975), where the award was \$2,024,700. Following completion of the sampling, the decision in that case was reversed on appeal. See Huddell v. Levin, 537 F.2d 726 (3d Cir. 1976). If the case is removed from the damages sample, the average damage award in the remaining five New Jersey cases becomes \$93,721. As noted elsewhere, the data concerning Arizona and Wisconsin cases are based on very few cases.

Chapter III
The Impact of
Product Liability on
Selected Industries

CHAPTER III--THE IMPACT OF PRODUCT LIABILITY ON SELECTED INDUSTRIES

Introduction

The information presented in this chapter came primarily from two sources--a telephone survey conducted by the industry contractor among firms in nine product categories selected for study by the Task Force, and a number of trade associations and three other private organizations which furnished information that was collected in surveys of their own members.

Most of the associations providing information to the Task Force are involved with products that fall within the nine selected product categories. However, several of the associations and the three private organizations--the Risk and Insurance Management Society, RETORT, Inc., and the National Federation of Independent Business--are concerned with other product areas.

As Chapter I indicated, it was not feasible to study all manufacturing industries, or even all industries that were likely to have product liability problems; therefore, a selected number of product categories were chosen which had the potential for causing serious injury. Also, manufacturers of most of the products selected approved (on the basis of anecdotal data) to have product liability insurance problems.

The product categories selected for study were divided into two groups: (1) products with workplace impact, and (2) products with consumer impact. The products with workplace impact include industrial machinery, grinding wheels, metal castings, and industrial chemicals. Products with consumer impact include aircraft components, automotive components, medical devices, pharmaceuticals, and power lawnmowers.

In both the telephone survey and the trade association surveys an attempt was made to obtain information from small, medium, and large firms in each product category. In the telephone survey the 337 respondents were approximately evenly distributed among the three size categories. They were also fairly evenly distributed by size in each of the product groups.

In the trade association surveys the size distribution varied considerably from one survey to the next. However, all the surveys together provide a substantial sample of all three size groups.

Additional sources that were examined in connection with this study include the various accident and injury reporting systems of the Federal government and the injury data reported under six state Worker Compensation systems.

Summary of Findings of the Industry Study's, Industry Association and Other Surveys

Although the data for this study must still be regarded as fragmentary, and come from a variety of rather diverse sources, there is enough consistency among the surveys to permit some general conclusions to be drawn.

(1) A large majority of manufacturing firms reported carrying some form of product liability insurance. Among the respondents to the telephone survey, 86 percent reported carrying product liability coverage. Large firms had a greater tendency to carry product liability insurance than small firms: 97 percent versus 71 percent. In the various trade association surveys, the percentage reporting product liability coverage ranged upwards of 85 percent.

(2) Unavailability of product liability insurance coverage was not a widespread problem among the firms responding to the various surveys. Only a few firms reported that insurance was unavailable at any cost. The problem of high and rapidly rising insurance costs was much more prevalent.

(3) The cost of product liability insurance has increased substantially since 1971 with the largest increases having taken place since 1974. The average percentage increases reported by all the firms in the telephone survey were 280 percent for the entire 1971-76 period, and 210 percent for the two-year period from 1974 to 1976. The increases reported in the trade association surveys varied widely from one survey to another. However, the median increases among the surveys appear to be on

the same order of magnitude as the averages for the telephone surveys.

(4) The cost of product liability insurance per thousand dollars of sales is generally much higher for the small firms reporting in the various surveys than for large firms. In many cases the percentage increases in costs were also higher for small firms.

(5) Despite the large increases in product liability insurance costs in recent years, most of the surveys found that the average cost of product liability insurance still represents somewhat less than one percent of the total cost of sales.

(6) There is an increasing trend toward higher deductibles and self-retention levels among both large and small firms. However, where the average limits of liability coverage changed at all during the last five or six years they generally increased somewhat.

(7) Both the telephone survey and the trade association surveys show significant increases in the number of claims and in the amounts of damages sought in product liability claims filed during the 1971-76 period. The results of the telephone survey indicate that the average number of new claims per firm increased from 4.3 in 1971 to 10.3 in 1972, and to 12.2 in 1975. The average number for the first nine months of 1976 was 11.4. The average amount of damages sought in new claims per firm rose from \$476,227 in 1971, to \$1,711,039 in 1976. The industry association surveys show the same trends, although the percentage increases were considerably larger in several instances. As most attorneys are aware, plaintiffs frequently request more in damages than they ultimately receive or expect to receive.

(8) The number of pending claims, and the amounts of damages sought in pending claims, have been rising more sharply than new claims. In the telephone survey the average number of pending claims rose from 3.5 per firm in 1971 to 18.8 in 1976. Meanwhile, the amount of damages sought in pending claims increased from \$434,075 to \$3,526,992 per firm. The trade association surveys show the same pattern.

(9) The information available from the telephone survey and the trade association surveys on damage awards and out-of-court settlements of product liability claims does not provide a definite indication of trends in recent years. There appears to be a general upward trend in the amounts of damages paid or reserved, but there is a great deal of variation from year to year and from one survey to another. The telephone survey indicated a sharp rise in the average amount of damages paid per firm between 1971 and 1972, from \$12,100 to \$28,800. Since 1972 there has been no significant change in the average amounts paid per firm.

(10) Analysis of existing Federal accident and injury reporting systems and the New York State system indicates that there has been no apparent increase in the frequency of product-related injuries, at least in the nine product areas selected for study. Consequently, the increases in product liability suits and claims in these product areas may be attributed to other causes.

Limitations of the Data

The telephone survey included responses from only 337 firms out of a population of many thousands of firms in the nine product areas. While these firms were randomly selected within each product and size category, the size of the sample is too small to assure that the information collected is representative of those product areas or of industry in general. Also, the product lines selected were ones where product injury risk appeared to be greater than average.

The trade association data were collected, and in some cases analyzed, by private organizations which were interested in assessing the impact of product liability on their own members. The techniques for collecting and analyzing the data were not consistent among all of the trade association surveys. In addition, it was necessary for many of the responding firms to rely on estimates in order to answer some of the questions in the surveys.

It should be noted in regard to all product liability surveys that most product liability insurance is included as part of a larger package of risk insurance coverage called "Comprehensive

General Liability" (CGL). The product liability portion of the insurance premium must usually be estimated since it is generally not stated separately. In such cases estimates of product liability premium costs were made by the individual firms responding to the surveys. The result is that although statements are made about increases in product liability insurance costs, such statements are usually based on experience with CGL premiums.

In the telephone survey conducted by the industry contractor, the 181 firms which were able to estimate the proportion of CGL premiums accounted for by product liability in 1976 attributed 78 percent of the total premium cost to product liability. The comparable figure for 1971 was estimated at 62 percent by 118 firms. An additional 43 firms were able to report data for product liability insurance separately in 1976, while only 12 firms had such data for 1971.

Data on claims and settlements are even more fragmentary than those for insurance costs. These data also are likely to involve estimates, or incomplete information in many instances. Information on the amounts of court judgments or out-of-court settlements is frequently maintained by a firm's insurance broker or underwriter and not directly by the firm. In such cases the information must be obtained from the insurance agents or else estimated. In many instances this information was not reported at all.

Consequently, while the Industry Study's telephone survey and the various trade association surveys provide the only information available at this time on the trends in product liability claims, settlements, and insurance costs, it must be recognized that this information is subject to the limitations associated with availability of the basic data as well as all the other limitations discussed in this section.

THE INDUSTRY STUDY'S SURVEY

Methodology

How the firms were selected and questioned

The industry contractor conducted a telephone survey of manufacturers in the nine product categories selected by the Task Force. A total of 337 firms responded to the telephone survey. The survey was designed to provide information on four product categories with workplace impact and five product categories with nonworkplace or consumer impact. It was also designed to provide information about small, medium, and large firms. The product categories and firm size categories were as follows:

Products with Workplace Impact

1. Industrial machinery: metal cutting, metal forming, woodworking, and textile machinery
2. Industrial grinding wheels
3. Ferrous and nonferrous metal castings
4. Industrial chemicals

Products with Consumer Impact

1. Aircraft components
2. Automotive components
3. Medical devices
4. Pharmaceuticals
5. Power lawnmowers

Firm Size Categories

- (1.) Small: firms with sales of less than \$2.5 million

2. Medium: firms with sales between \$2.5 million and \$100 million a year
3. Large: firms with sales of \$100 million and over

The sample of firms for the telephone survey was drawn from a Dun & Bradstreet list which identifies firms by four-digit Standard Industrial Classification (SIC). A random sample of about 20 firms was drawn for each size category in each of the nine product areas.

Each firm selected in the sample was contacted by telephone in order to determine whether the firm was indeed engaged in producing the product in question and whether the firm would be willing to participate in the survey. The response rate was 68 percent overall, ranging from 53 percent to 80 percent among the nine product categories.

After the appropriate person to respond to the questions was identified within each firm, a copy of the questionnaire was mailed to that person. The questionnaire asked for information concerning product liability such as trends in premiums and claims, the impact of product safety programs and practices, and types of product liability prevention techniques employed or planned. Information was also requested concerning the effectiveness of suggestions made by insurance carriers as a result of loss prevention surveys.

The purpose of mailing the questionnaires to the respondents was to acquaint them with the types of information being sought by the Task Force and to guide them in the collection of the necessary data. Within ten days after the questionnaires were mailed, the firms were again contacted by telephone in order to collect the information. The telephone interviewers recorded the information on forms designed for key punching. In many cases more than one telephone call was necessary in order to identify the appropriate person within a firm and to obtain all of the required information.

As we have indicated, the results of the survey are not necessarily representative of all manufacturers within any of the particular product groups or size categories, nor can they be

considered to be representative of the manufacturing industry as a whole. The results of the survey do serve as indicators of the general trends in product liability insurance premiums and claims in the nine selected industries. They also give an indication of the differences in experience between large and small firms. However, the statistics should be regarded as describing the experience of the 337 responding firms in the sample rather than estimates applying to the total population.

Characteristics of Responding Firms

The response patterns by product and sales categories are shown in Table III-1. Eleven of the 27 sample cells had response rates greater than 75 percent and 16 equalled or exceeded 65 percent. Only three of the cells had a response rate of less than 50 percent and one of these is a special case. Only eight firms with sales of \$100 million or more were identified in the grinding wheels industry, and of these, three responded to the survey for a response rate of 38 percent. However, the overall response rate for that product category was 62 percent.

It should be noted that not all respondents were able to supply data for every question for every year. In the tables showing the results of the survey, the number of firms responding to each of the data items is indicated. Because of the variation in the number of firms responding to each question, care must be taken in making comparisons between entries in different tables.

Table III-2 shows average sales per firm by product and size category for 1975. While the average size of sales for firms in the "medium" firm size category was over \$27 million, 28 of the 119 responding firms in that category had sales of less than \$5 million, and 54 had less than \$10 million. Therefore, it appears that the distribution of firms within the \$2.5 million to \$100 million sales category is skewed somewhat toward the smaller end of the scale.

Although sales data are shown only for 1975 in the table, the results of the survey indicate that sales increased substantially for all product and size categories during the 1971 to 1976 period. The estimated average increase for all firms in the survey during this period is about 70 percent.

The small- and medium-sized firms in the survey were found to be heavily concentrated in the nine product areas that were selected for the study. The small firms indicated that 83 percent of their total sales, on the average, were in the specified product areas. For the medium-sized firms, the proportion was 77 percent. As may be expected, the large firms were more diversified, with an average of 49 percent of their total sales attributable to the designated product categories.

RESULTS

Insurance Coverage

About 86 percent of the firms in the survey reported that they carry some form of product liability insurance coverage. This ratio varied somewhat among the product categories. However, generally 75 percent to 95 percent of the firms in the various product categories carry some form of product liability coverage.

The variation in insurance coverage was somewhat larger between small and large firms than among product categories. About 97 percent of the large firms carry product liability insurance, while only 71 percent of the small firms have such coverage. About 87 percent of the medium-sized firms reported product liability insurance coverage. (See Table III-3.)

The reasons given for not carrying product liability insurance are shown in Table III-4. Slightly less than 7 percent of the responding firms indicated that they did not carry product liability insurance because it was too expensive or unavailable at any cost. Another 5 percent, mainly small firms, indicated that they did not need product liability coverage.

Because of the small size of the sample, the results shown in Table III-4 cannot be applied to industry as a whole, or to the individual product categories. However, the results do provide an indication that a significant number of firms, particularly small firms, are going without product liability insurance.

Approximately 64² percent of the responding firms carry both primary and umbrella² product liability insurance. The extent of

for all products of the responding firms. However, the percentage increases were on the same order as those reported for the other categories of product liability insurance coverage, about 200 percent for the entire 1971-76 period and about 190 percent for the last two years alone.

Rates per thousand dollars of sales for umbrella coverage are shown in Table III-8. Significant increases in these insurance rates occurred only in 1976 for medium and large firms. However, the rates in all years were much higher for small firms. It is also apparent that the tendency to carry umbrella insurance is related to the size of the firms. Small firms are least likely to carry this type of coverage while a high percentage of the large firms have umbrella coverage.

Trends in Deductibles and Limits of Liability

The number of firms reporting deductibles, or self-insurance retention, and the average amounts of deductibles are shown in Table III-9. Deductibles increased at irregular intervals throughout the 1971-76 period, with the largest increases occurring in 1976. At the end of the period, the average size of the deductibles was over four times as large as it was at the beginning of the period. Meanwhile the number of firms reporting deductibles either for bodily injury, or for combined bodily injury and property damage, increased from 59 to 116.

Deductibles have consistently been much higher for large firms than for medium and small firms. The larger firms are also more likely to have deductibles than the smaller firms.

The overall average limits of liability for bodily injury, or combined bodily injury and property damage, did not change substantially during the 1971-76 period. The large firms showed an average increase about in line with inflation. The medium and small firms indicated no clear trend in the limits of liability except for a gradual decrease in the average limit for small firms in the combined coverage for bodily injury and property damage. The small firms in the survey consistently reported much lower limits per occurrence than the larger firms. The average limit for combined bodily injury and property damage for small

firms is about one-third as large as the limit for medium-sized firms, and less than one-sixth as large as that for large firms.³

A number of firms reported restrictions on insurance coverage besides the limits of liability. The most frequently reported restriction was the exclusion of certain products. Thirty-eight firms, or about 11 percent of the total number of firms in the survey, reported this restriction. Nine firms reported restrictions on coverage of legal defense costs and 20 firms reported other miscellaneous restrictions.

Product Liability Claims Experience

The numbers of firms reporting any claims during the 1971-76 period are shown in Table III-10. The firms reporting claims in the nine specified product areas are also shown in the table. The number of small firms reporting product liability claims during this period was relatively small. Only 18 firms, or about 18 percent of the small firms reporting on this question, had any claims. The percentage reporting claims was considerably higher for the medium and large firms, about 50 percent and 96 percent, respectively. As might be expected, the number of firms reporting claims for the nine specified product categories alone was somewhat smaller.

The average number of claims pending per firm at the end of each year from 1971 to 1976 is shown in Table III-11, by product category. Again, it should be noted, that the data for 1976 cover only about the first nine months. These data show a substantial rise in the number of pending claims for all products during the six-year period. For all product categories, the average number of pending claims increased from 3.5 per firm in 1971 to 18.9 per firm in 1976. For some product categories the increase was substantially sharper.

Table III-12 shows the average number of new claims filed per firm, by size category, from 1971 through the first nine months of 1976. The table shows that there was a sharp rise in claims for large firms between 1971 and 1972, but no significant change in the trend of new claims filed for medium and large firms since

1972. However, the average number of new claims for small firms rose gradually during this period.

Table III-13 shows the average number of new claims filed per firm by product category. These data reflect sharp increases in new claims from 1971 to 1972 in almost all product categories. Since 1972 the pattern has been irregular, with increases in some product areas and no clear trend in others.

The average amounts of damages sought per firm in pending claims are shown in Table III-14. The average amount for all firms reporting increased eightfold between 1971 and 1976. Sharp increases occurred in all size categories throughout the six-year period.

The trend in damages sought in new claims during the 1971-76 period is less clear than the trend in pending claims. The average amount sought per firm in new damage claims each year is shown in Table III-15. Although there appears to be a general increase over time in the average dollar amounts sought per firm, the pattern is quite irregular.

It should be noted that the amount of damages pending at the end of any particular year should be equal to the amount of damages pending at the end of the previous year, plus any new claims filed and minus any claims disposed of during the year. In several instances the reported data on damages sought do not appear to be consistent with this basic mathematical logic. However, it is not possible to determine whether the inconsistencies result from variations in the firms' reporting practices from year to year, or from simple reporting error.

Damages Paid

The average amounts of damages paid per firm in court judgments and out-of-court settlements are shown by size of firm in Table III-16. There was a sharp jump in the average size of damages paid between 1971 and 1972, from \$12,100 per firm to \$28,800 per firm. Since then there has been no significant change in the average amounts paid per firm. The absence of any trend in the average amount of damages paid per firm since 1972 is consistent among all three size categories.

Product Safety and Product Liability Prevention Programs

The firms responding to the telephone survey were asked a number of questions about product safety practices and product liability prevention programs. These questions included such topics as quality control, design and engineering, instructions and warnings, and inspections by insurance carriers. The results of this portion of the survey are described in detail in Chapter IV.

INDUSTRY ASSOCIATION AND OTHER PRIVATE SURVEYS

Organization of the Surveys

At the beginning of this study of the product liability problems of American industry, discussions were held with a number of trade associations and other interested groups. The purpose of these discussions was to gain a better understanding of industry's product liability problems, to obtain any information that these groups had available, and to explore the feasibility of obtaining additional information through the cooperation of these groups and their members.

Many of the associations were acutely aware of the product liability problems of their members. Some had already established committees or panels to study the issue. Several associations had also begun to collect data on insurance costs, claims and suits experience, and remedy preferences of their members.

As a result of these discussions, a number of trade associations and other interested groups provided available information to the Task Force. Some groups conducted surveys of their members with the objective of obtaining additional information for their own use and for the consideration of the Product Liability Task Force.

A total of 21 groups submitted information which was obtained from surveys and studies of their respective memberships. A list of participating groups and the types of information provided are shown in Table III-17. The surveys that were conducted were designed to address issues of particular interest to the

individual associations. Therefore, the information collected was not uniform. However, there are enough common elements in these studies to make the information useful, particularly for comparison with data from other sources such as the Insurance Study and the telephone survey conducted for the Task Force by contractors.

The response rates in the surveys conducted by the trade associations and other groups were generally quite low, ranging from 15 to 35 percent in most cases. In many instances the returned forms were incomplete, indicating either an unavailability of data or an unwillingness to respond to some questions. Also, since firms participated voluntarily in these surveys, it may be that those returning completed questionnaires had a greater interest in the product liability issue than those not responding. Such interest could indicate a greater incidence of product liability claims or larger increases in insurance premiums among the respondents. The same type of bias may also be reflected in the telephone survey conducted by the industry contractor, although to a lesser degree since the response rate was quite high. On the other hand, some companies with unfavorable claims experience may have been reluctant to disclose that fact because of potential unfavorable use in competition or in litigation.

Characteristics of Respondents

The size characteristics of the respondents to the trade association surveys are summarized in Table III-18. While the distribution of responding firms by size is quite uneven from one trade association to another, when all associations are considered, there is a significant representation of all size categories in the trade association surveys.

The size of the responding firm was not available from all trade association surveys. However, for those surveys where this information was available, the total distribution of respondents by size is approximately as follows: large--440, medium--600, and small--1,800.

RESULTS

Insurance Coverage and Availability

About three-fourths of the trade association surveys asked respondents whether or not they carried product liability insurance. Those firms without insurance were asked to indicate the reason for not carrying product liability insurance. The reasons given for not carrying insurance are shown in Table III-19.

The percentage of firms not carrying product liability insurance ranged from 0 to 21 percent among the 15 trade associations reporting information on this question. The reasons for not carrying insurance were varied, but the largest number of firms (56) indicated they were without insurance because they did not need it. Another 34 firms indicated they were self-insured. Of the remaining firms without insurance, 32 stated it was too expensive, 17 said they could not get insurance and 16 reported their insurance had been canceled.

It is apparent from Table III-19 that the industries with the highest percentages of uninsured firms are those predominantly made up of smaller firms.

Cost of Insurance and Claims in the Selected Industries

Most of the trade association surveys asked detailed questions about the types of product liability insurance carried, the cost of product liability insurance, limits of liability, and deductibles. In most cases this information was requested for each year from 1971 or 1972 to 1975 or 1976. The annual information made it possible to examine the trends that were developing with respect to product liability insurance costs and insurance coverage.

The surveys also requested detailed information on the product liability claims experience of the responding firms. This information included the number of new claims filed each year and the amount of damages sought in those claims. Information was also requested on the number of claims and suits

dropped, the number settled out of court, and the amount of damages paid in out-of-court settlements.

Information was also reported on the product liability suits actually adjudicated. This information included the number of cases won and lost by the reporting firms and the amounts of court judgments paid to the plaintiffs.

The information on claims and suits was generally reported for the same time period as the information on insurance costs and coverage. Most surveys also included reports on the number of claims and suits pending at the end of each year and the total amount of damages sought in the pending suits and claims.

This section summarizes the information collected on product liability insurance and product liability claims by trade associations in the product categories designated for study by the Task Force. The results of the trade association surveys are grouped according to (1) products with workplace impact and (2) products with consumer impact. The results of surveys conducted by trade associations in other product areas and surveys by other types of organizations are summarized below in the next section.

Products With Workplace Impact

American Textile Machinery Association.--This survey includes useable responses from 46 firms. Of those firms, 44 reported carrying product liability insurance. Insurance cost and claims data were reported for the years 1974 to 1976. Reported insurance costs by size of firm are shown in Table III-20.

Several important points clearly stand out from these data. First, the cost of insurance for small firms is very much higher than for larger firms. Second, the percentage increases in insurance costs also were much higher for the small firms than for the large firms, and they occurred a year sooner. Third, the average annual increases in insurance costs for all firms reporting were very large--568 percent in 1975 and 55 percent in 1976.

There was no significant change in the number of new claims filed during the 1974-76 period. However, both the number of

pending claims and the amount of damages sought in pending claims increased substantially since 1974. The claims experience of the reporting firms is shown in Table III-21. The data for 1976 represent only part of the year. No court judgments were reported during this period.

Industrial Heating Equipment Association.--Fifty-three firms out of 204 firms surveyed responded to this survey. Of these, 49 reported carrying product liability insurance. Insurance cost and claims data were reported for the years 1971 to 1975. Reported insurance costs by size of firms are shown in Table III-22.

Insurance costs for all firms more than doubled during the five-year period from 1971 to 1975. The largest increase occurred between 1974 and 1975 when the average rate increased by 54 percent. From 1971 to 1974 the average annual increase was about 10 percent. Both the rates and the percentage increases were higher for the small firms than for the large firms.

The limits of liability for primary coverage did not change significantly during the 1971-75 period. Although there was a moderate decrease in the average for all firms, the detailed analysis shows that the average limits increased slightly for small and medium-sized firms and decreased slightly for large firms.

The average size of deductibles and the number of firms reporting deductibles increased somewhat during the five-year period. In 1971, only one firm reported a deductible of \$10,000. From 1972 to 1974, three firms reported deductibles averaging \$16,700. In 1975, eight firms reported deductibles averaging \$12,600.

Thirty-six of the firms reporting indicated that they had umbrella coverage, either in addition to primary coverage or instead of primary coverage. The total cost of umbrella coverage for the large firms increased about 60 percent from 1971 to 1975. The average limits of liability increased by about the same amount. For the medium-sized firms the cost of umbrella insurance more than doubled while the average limits of liability increased about 20 percent. For the small firms the average

reported costs varied greatly from year to year because one firm in 1971 and another in 1973 reported extremely high costs. However, if these firms are excluded, average costs increased steadily from \$767 in 1971 to \$4,946 in 1975. The limits of liability increased by 30 percent during this period.

Twenty-two of the companies experienced product liability claims or suits during the 1971-75 period. The number of new claims filed about doubled during the period. However, the amount of damages sought in new and pending claims increased very sharply. The claims experience of reporting firms is shown in Table III-23.

Machinery and Allied Products Institute.⁴--This survey produced 210 responses across a broad range of industries, with a primary concentration in the capital goods industries. This was a very extensive survey which covered a wider range of issues than most. The main findings in the insurance and claims areas are summarized below:

- There was a sharp rise in both the number and dollar amount of product liability claims during the last decade. For the period from 1970 through 1975, 156 companies reported product liability suits filed against them in the amount of \$828 million as expressed in terms of plaintiffs' demands. At the end of this period, 161 companies reported that over \$113 million was reserved by insurance carriers for pending claims.
- Almost all respondents carry primary product liability insurance coverage and excess product liability coverage. The majority of respondents consider insurance coverage adequate, but nearly half consider the cost unreasonable.
- More than 94 percent of the companies indicated that their product liability premiums and other costs related to product liability have increased during the past five years. The increases ranged up to 4,000 percent, with 58 percent of the companies reporting increases between 100 percent and 1,000 percent.

- About one-third of the companies were required to accept large deductibles.

This survey was widely based in terms of the size distribution of responding firms. Unlike many of the trade association surveys, which included a predominant number of small firms, the respondents in this survey were more evenly distributed across the size spectrum, with a substantial number of very large firms. The distribution of respondents is shown below.

Size of firms responding to the survey:

<u>Size of Sales</u>	<u>No. of Firms</u>
Under \$10 million	25
\$10 to \$50 million	53
\$50 to \$100 million	29
\$100 to \$500 million	59
\$500 million to \$1 billion	18
\$1 billion and over	<u>26</u>
Total	210

Product liability insurance costs as a percentage of sales is one of the questions addressed in this survey. More than half of the companies responding to this question indicated that product liability insurance costs were in the range of 0.1 percent to 0.9 percent of total sales. A summary of the distribution of insurance costs as a percent of sales is shown below.

Product liability insurance costs as
a percentage of sales:

<u>Percentage Range</u>	<u>No. of Firms</u>
Less than .01 percent	19
.01 percent through .09 percent	29
.1 percent through .9 percent	105
1.0 percent through 1.9 percent	17
2.0 percent through 2.9 percent	4
3.0 percent and above	<u>3</u>
Total	177

This survey included questions about the total costs related to product liability. Costs in this category include costs of insurance, uninsured costs of payments to others, and internal costs not covered by insurance. The percentage increase in the total amount of such costs during the last five years was reported by 159 firms. The distribution of the percentage increases is as follows.

Percentage increase in costs related to
product liability from 1970 to 1975:

<u>Percentage Range</u>	<u>No. of Firms</u>
0	10
Less than 10 percent	1
10 percent through 24.9 percent	7
25 percent through 49.9 percent	13
50 percent through 99.9 percent	16
100 percent through 199.9 percent	34
200 percent through 499.9 percent	27
500 percent through 999.9 percent	32
1,000 percent through 1,999 percent	13
2,000 percent through 3,999 percent	3
4,000 and above	<u>3</u>
Total	159

Almost 50 percent of the firms reporting experienced product liability cost increases of 200 percent or more during the five-year period. While comparable information is not available for insurance costs alone, it is apparent from related questions that the bulk of the costs reported on in the above question consist of product liability insurance premiums.

The survey asked a number of questions concerning experience with product liability suits and claims during the past five years. The responses to those questions are summarized in Table III-24.

The survey requested information on the total amount and number of claims paid and reserved for selected years since 1965. This information is presented below.

Total claims paid and reserved for selected years:

<u>Year</u>	<u>Number</u>	<u>Amount</u>	<u>No. of Firms</u>
1965	6,641	\$11,490,971	159
1970	7,084	51,414,421	192
1973	11,182	76,250,157	193
1975	9,865	81,236,281	191

The increase in the number and amount of claims between 1965 and 1970 may be partly explained by the increase in the number of firms reporting in 1970. A number of respondents no longer had records for 1965. However, the increasing trend in both the number and amount of claims is unmistakable. In addition, the figures for 1975 are still incomplete since many claims are not reported until several years after the accident.

While the number of claims has been rising over the years, the size of the claims has also been increasing. The average claim in 1965 was \$1,730. This figure increased to \$7,258 in 1970, \$6,819 in 1973, and \$8,234 in 1975. The distribution of claims paid and reserved during this period is shown below.

Distribution of claims paid and reserved, by size:

<u>Size of Claims</u>	<u>Number of Claims Paid and Reserved</u>			
	<u>1965</u>	<u>1970</u>	<u>1973</u>	<u>1975</u>
Under \$1,000	4,285	4,181	4,492	2,584
\$1,000 to \$10,000	906	1,476	1,898	1,291
\$10,000 to \$100,000	195	530	849	492
\$100,000 to \$500,000	19	64	169	90
\$500,000 to \$1 million	2	11	15	41
Over \$1 million	0	4	17	11

Again, it should be noted that the data for 1975 are still incomplete.

National Machine Tool Builders Association.--This survey included a total of 60 responses distributed fairly evenly across all size categories. Detailed data on the cost of product liability insurance are available only for 1976. The average

cost per thousand dollars of sales for all firms was \$7.23. This represents an increase of 89 percent from 1975 and 233 percent from 1972. The cost distribution by size of firm in 1976 is shown below.

✓ Product liability insurance--cost per thousand
dollars of sales in 1976:

<u>Size of Sales</u>	<u>Average Cost</u>	<u>No. of Firms</u>
Under \$2.5 million	\$ 7.51	15
\$2.5 to \$5.0 million	6.48	14
\$5.0 to \$7.5 million	19.16	7
\$7.5 to \$15 million	12.30	7
\$15 to \$50 million	3.48	9
\$50 million and over	2.68	8

This survey shows the highest rates for product liability insurance being paid by the small- to medium-sized companies, with the rates substantially lower for the largest firms.

The 60 responding firms reported a total of 771 product liability claims since 1970. In 1975 there were 166 claims and in 1976, up to the time of the survey, there were 67 claims. Out of the total claims filed, 186 were dropped and 145 were settled out of court. The average cost of out-of-court settlements was \$18,000 per claim.

The judicial process was completed at the time of reporting for 58 of the claims filed during the 1970-76 period. Of the 58 suits, 42 were won by the defendants and 16 by the plaintiffs. The average amount of the court judgments was \$256,000.

Twenty-eight of the companies reporting had no product liability claims pending. The 32 companies with pending claims reported a total of 436 claims pending.

Railway Progress Institute--The members of this association produce virtually all the equipment used by the nation's railroads. Questionnaires were sent to 86 manufacturing firms. Thirteen firms responded for a response rate of 15 percent. However, these firms represent about 30 percent of the industry's

sales. The size distribution of the responding firms was as follows: under \$50 million in sales--3 firms; \$50 to \$100 million-- 4 firms; and over \$100 million--6 firms.

All 13 of the responding firms reported carrying primary product liability insurance and umbrella coverage. The cost per thousand dollars of sales for primary product liability insurance is shown below.

Product liability insurance--average annual cost
per thousand dollars of sales:

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
1975	\$.90	9
1974	.74	9
1973	.75	9
1972	.73	8
1971	.77	7
1970	.49	5

The cost of product liability insurance increased by 84 percent during the period from 1970 to 1975, or at an average rate of about 13 percent a year. During the same period the limits of liability increased somewhat, from \$630,000 in 1970 to \$725,000 in 1975. The average amount of deductibles also increased substantially, from \$39,000 in 1970 to \$118,000 in 1975, while the number of firms reporting deductibles rose from five to seven.

The average cost of umbrella coverage also increased steadily, from \$15,300 in 1970 to \$26,300 in 1975. The average limits of liability rose from about \$25 million to \$34 million during the same period.

Nine of the responding firms indicated that they had experienced one or more product liability claims since 1970. However, only five firms were able to provide any detailed information on the number of claims filed and the amount of damages sought. The claims experience for those firms is shown in Table III-25.

Woodworking Machinery Manufacturers of America.--A total of 46 companies responded to the survey. Thirty-nine of these firms reported that they were engaged in manufacturing capital goods while four firms reported they manufacture consumer goods. Thirty-eight of the firms also reported that they sell or distribute capital goods and eight firms distribute consumer goods. The reporting firms estimated that 95 percent of their product liability claims arise from manufacturing operations.

Most of the firms reporting in this survey were in the small-to medium-sized category. Of the 44 firms indicating their size of sales, 31 had sales of less than \$5 million and five firms had sales between \$5 and \$10 million. Four companies were in the \$10 to \$24 million category, three companies in the \$25 to \$99 million group, and one firm had sales of over \$100 million.

Product liability insurance costs were reported both for primary coverage and for excess coverage. Insurance costs were reported only on a cost per firm basis rather than cost per thousand dollars of sales. Average insurance costs per firm are shown in Table III-26.

The average cost of primary product liability insurance increased about tenfold between 1971 and 1976. This represents an average annual rate of increase of nearly 60 percent during this period. Since 1974 the average cost per firm has increased by a total of 445 percent.

The cost of excess coverage has increased nearly as much as the cost of primary coverage. However, the average dollar amounts for excess coverage are considerably smaller than for primary coverage and the number of firms reporting excess coverage is also smaller.

The average limits of liability increased somewhat during the 1971-76 period. Average deductibles also increased during this period but were still quite low at \$2,030 per firm for the five firms reporting deductibles. Three firms also reported self-insured retention levels averaging \$8,333 in 1976.

Product liability insurance costs as a percentage of sales were also reported in this survey. The reported average percentage rose from 0.3 percent in 1972 to 0.9 percent in 1976.

The number of product liability claims filed and the amount of damages sought increased substantially during the period from 1971 to 1975. Data were also reported for 1976 but are still incomplete. The claims experience for reporting firms is shown below.

Woodworking Machinery Distributors Association--Thirty-two firms responded to this survey. Insurance coverage and cost data were provided for 1971 and 1976. Insurance information was requested in the survey for general liability coverage and for umbrella coverage. Thirty firms reported carrying general liability while two firms carry only umbrella coverage. Average insurance costs and coverage are shown below.

General liability insurance--average cost and
limits per firm:

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>	<u>Average Limits</u>
1976	\$3,652	30	\$515,000
1971	924	20	297,000

Umbrella coverage--average cost and
limits per firm:

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>	<u>Average Limits</u>
1976	\$1,886	12	\$1,144,000
1971	384	6	1,143,000

The average cost of general liability insurance increased fourfold between 1971 and 1976. This represents an average annual rate of increase of 32 percent. The average limits of liability increased about 75 percent during this same period.

The average cost of umbrella coverage, while only about half as much as general liability coverage per firm, increased at a faster rate. The average cost rose nearly fivefold between 1971

and 1975, while the limits of coverage remained essentially unchanged.

Deductibles for general liability were reported by seven firms in 1976. The average amount was \$3,336. In 1971, one firm reported a deductible of \$1,000.

Product liability claims paid during the period from 1971 to 1976 were reported by six firms. Nine claims were paid for a total amount of \$194,650, or an average of \$21,628 per claim.

There were also nine claims pending in 1976 among six firms. The total amount of damages sought in pending claims was \$2,035,000, an average of \$226,111 per claim.

Grinding Wheel Institute.--The nature of the responses to this survey made it impossible to present a complete tabulation of the results. However, a summary of the results was provided as follows:

- Respondents represent over 70 percent of the dollar volume of bonded abrasives manufactured in the U.S.
- The total number of product liability claims was 75 percent greater in 1975 than in 1970. The large- and medium-sized companies experienced a 58 percent increase in the number of claims during the 1970-75 period while small companies had a 350 percent increase.
- The total number of claims that were litigated increased uniformly in the industry by 375 percent during the 1970-75 period.
- There appears to be no trend in court judgments against the manufacturers.
- The average cost of product liability coverage increased by 185 percent from 1970 to 1975. The median increase was 113 percent. Several companies, primarily small firms, reported an additional average increase in premiums of 198 percent from 1975 to 1976. One company reported a tenfold increase from \$8,000 to \$80,000.

Society of the Plastics Industry.--There were 366 respondents to this survey out of about 1,100 members of the association. Responses were received from processors, material suppliers, mold and tool makers, and machinery manufacturers. The size of the responding companies covered a wide range from under \$5 million in sales to over \$500 million. However, most of the companies were in the small- to medium-sized category. The distribution of respondents by size and type of product is shown below.

Size and type of firms responding to the survey:

Size of sales (millions)	Type of Company				Total
	Processor	Material Supplier	Mold and Toolmaker	Machinery Manufacturer	
Under \$5	136	21	26	57	240
\$5 to \$10	27	4	2	4	37
\$10 to \$25	20	5	1	15	41
\$25 to \$50	9	2	1	3	15
\$50 to \$100	3	5	--	2	10
\$100 to \$500	4	12	--	1	17
Over \$500	<u>1</u>	<u>4</u>	<u>--</u>	<u>1</u>	<u>6</u>
Totals	200	53	30	83	366

About 88 percent of the companies reported that they carry product liability insurance. Of these, about 84 percent carry primary and umbrella coverage with the remainder carrying primary coverage only. The pattern of coverage is similar for all types of companies.

The information on insurance costs was not tabulated by size of firm but was tabulated by type of company.

The reported costs for primary product liability insurance coverage are shown in Table III-28. Average costs were computed only for all respondents while median costs were tabulated by type of firm as well as for all respondents.

The average cost of primary product liability insurance for all respondents increased by about 224 percent from 1970 to 1976. This represents an average annual rate of increase of about 22

percent a year. The largest increases took place during the last two years. Since 1974 the average cost has increased 178 percent.

The median costs of primary insurance coverage are substantially lower than the average cost. However, the percentage increases were about the same. Median costs rose by 230 percent between 1970 and 1976 and by 141 percent since 1974.

Median insurance costs rose more for some types of the reporting companies than for others. The largest increases for the entire 1970-76 period were experienced by the machinery manufacturers. Their median costs rose by 410 percent. The lowest percentage increase was experienced by processors who had a 117 percent increase. Material suppliers had a 290 percent increase and mold and tool makers had a 240 percent increase. During the last two years the increases ranged from 118 percent to 190 percent.

There were no significant changes in the limits of liability for primary coverage during the last six years. The average for all respondents increased slightly, from \$2.2 million in 1970 to \$2.8 million in 1976. The median for all firms increased to \$500,000 in 1976 from \$300,000 in all the previous years. The median figures for the various types of respondents all followed the same general pattern.

Deductible provisions were reported by 55 companies, or slightly less than one-fifth of the companies reporting in 1976. In 1970, 20 companies, or about 17 percent reported deductibles. The average amount of deductibles fluctuated from year to year. The average was \$64,300 in 1970 and \$74,328 in 1976. The median amount was \$5,000 in both years.

Umbrella coverage was reported by 197 firms in 1976. The number of firms reporting such coverage has increased steadily from 52 in 1970. The average cost for umbrella coverage rose from \$6,418 in 1970 to \$34,078 in 1976. This represents an increase of 430 percent during the six-year period. The limits of liability for umbrella coverage decreased slightly from \$10.8 million in 1970 to \$9.2 million in 1976.

About 35 percent of the respondents had product liability claims or suits during the 1970-76 period. However, the percentage varied considerably by type of company. These percentages were: 66 percent for material suppliers, 54 percent for machinery manufacturers, 23 percent for processors, and 10 percent for mold and tool makers.

The claims experience for all respondents is summarized in Table III-29.

Cast Metals Federation.--A total of 195 firms responded out of 810 firms that were surveyed. Of those responding, 165 reported that they carry product liability insurance and 30 indicated that they have no insurance. Primary and umbrella coverage are carried by 142 firms while 23 firms have only primary coverage. Reported insurance costs by size of firms are shown in Table III-30.

Insurance costs for all firms increased by 173 percent between 1971 and 1976. The largest increases took place between 1974 and 1976. The increases in this period alone amounted to 155 percent. The increases in insurance rates in this industry are fairly uniform across all size groups. The rates are slightly lower for the larger firms than for the small- to medium-sized firms. However, the differences are much less pronounced than in most industries studied.

The limits of liability increased for all size categories between 1971 and 1976. The average increase for all firms was 48 percent.

Deductibles also increased during the six-year period. Fifteen firms reported an average deductible of \$3,000 in 1971, while 27 firms reported an average of \$6,590 in 1976. This industry is peculiar in that the small to medium firms reported higher average deductibles than the large firms. In 1976, eight small firms reported an average deductible of \$9,300, while six medium firms reported an average of \$8,800, and 13 of the larger firms reported an average of \$3,900.

The limits of liability for umbrella coverage increased for all size categories between 1971 and 1976. The average increase for all firms was about 75 percent.

Total product liability costs as a percentage of sales were reported in this survey. The average percentage increased from 0.13 percent in 1971 to 0.48 percent in 1976. The percentages in 1976 were: 0.33 percent for small firms, 0.38 percent for medium firms, and .77 percent for the larger firms with sales over \$10 million a year.

Thirty-eight companies had product liability claims during the 1971-75 period. Both the number of new claims and the amount of damages sought increased sharply during this period. The claims experience of the reporting firms is summarized in Table III-31.

American Die Casting Institute.--The Institute membership is of two types, regular members who are engaged in producing metal casting specialties, and affiliate members who deal in related products. There were 52 respondents to the survey who answered one or more questions. Eight of these were affiliate members. The distribution of respondents by size and type is shown below.

Size and type of firms responding to the survey:

<u>Size of Sales</u>	<u>Members</u>	<u>Affiliates</u>	<u>Total</u>
Under \$5 million	27	4	31
\$5 to \$50 million	16	1	17
\$50 to \$100 million	1	0	1
Over \$100 million	0	3	3

Forty-two of the firms reported that they carry product liability insurance. Cost information was reported on the basis of total premium costs per firm rather than cost per thousand dollars of sales. Premium costs for umbrella coverage were also reported. Average insurance costs per firm are summarized in Table III-32.

This table primarily reflects the experience of regular members since it includes data from only one affiliate member. The average cost of primary product liability insurance increased

by 97 percent between 1971 and 1975. The increase in 1975 was 23 percent. The average cost of umbrella coverage increased by 56 percent during the five-year period.

No deductibles were reported on product liability insurance until 1975, when five firms reported deductibles.

The product liability claims experience of the reporting firms was relatively limited. One member firm reported a suit for \$105,000 in 1971 but did not indicate its disposition. Two firms reported one claim each in 1972, one of which was dropped and the other settled out of court. The latter claim was for \$1.5 million and was settled for \$47,000. One firm reported a claim in 1974 for \$10,000 but no disposition was indicated. Two of the affiliates reported that they had a number of claims but no specific information was provided.

Products With Consumer Impact

The Automotive Parts and Accessories Association, Inc.--This survey of 1,100 member firms engaged in the manufacture, distribution and sales of automotive after-market products includes responses from 105 manufacturers and 14 distributor/retailers.

In the area of insurance costs, all but four respondents indicated that their insurance premiums had increased by large increments. Percentage increases over the last ⁵ year were reported by 52 firms and averaged about 200 percent. Increases ranged from 10 percent to 1,000 percent.

The total average increase over the last five years was reported to be about 340 percent for the 36 firms reporting, indicating that increases on the order of 45 percent annually were experienced from 1971 to 1975.

General information was also collected on the source and trends of claims and suits as follows:

- 73 of 105 firms reporting indicated that claims typically arose from purchasers of products. All distributors indicated this was the case.

- 28 of 105 firms indicated the claim was typically a third-party action, while only four cited a Worker Compensation claim as being typical.
- About 50 percent of the firms indicated an increase in both the number and size of claims over the last five years. About 22 percent indicated a claims decrease. Somewhat less than 30 percent stated that the number and size of claims had remained the same.

Recreational Vehicle Industry Association.--The information was collected and subsequently compiled in September 1976. It dealt with insurance costs, deductibles or self-retention levels, and certain aspects of legal defense and settlement costs.

No stratification by firm size was attempted; however, a distinction was made between manufacturers (48 responses) and suppliers (19 responses). The number of responses concerning insurance premiums exceeded 27 firms, but the exact number reporting is not indicated specifically. Reported insurance costs during the six years from 1971 to 1976 for manufacturers and suppliers are shown in Table III-33.

A generally stable or slightly increasing pattern is shown for the period 1971-74. During the 1974-76 period the average cost of insurance increased by 91 percent for manufacturers and 196 percent for suppliers.

Claim trends were not reported for the entire survey. However, information on losses, by year, was reported by several firms. Generally, no trends in losses are apparent. High average losses were sustained in 1974 as a result of one large settlement.

General Aviation Manufacturers Association.--This trade association represents 35 companies which manufacture over 90 percent of all general aviation aircraft, engines, avionics, pilot supplies and components. Member firms with general aviation sales in the \$2.5 million to \$100 million category predominate (21 companies). Eight firms have sales of less than \$2.5 million and six are in the over \$100 million category.

All GAMA member companies carry product liability insurance, normally purchased as a separate package. Most firms purchase from one of two U.S. insurance pools or from the London market. It is estimated from industry surveys that the cost of insurance rose from \$3.55 to \$21.10 per thousand dollars of general aviation sales between 1969 and 1973. This represents an increase of nearly 500 percent, or about 55 percent a year.

Three of the member firms have reported increases for the period 1971 to 1975 ranging from 360 percent to 1,100 percent. No information was available on limits of liability.

Some claims information was also presented for the years 1964 through 1973 as follows:

- o More new claims are being filed each year and for greater amounts. In 1973, 253 new claims were filed compared to 93 claims in 1964.
- o Pending claims have also increased many fold, from 3 in 1964 to 224 in 1973. About 50 percent of the claims are paid out in the third to fifth year after they are filed.

Health Industries Manufacturers Association.--In February 1976, the association sent a questionnaire to 160 member firms requesting information on each firm's experience with product liability coverage. Forty-eight responses were received. Only limited information was obtained concerning premium rates and claims history. However, it is reported that those member firms responding experienced a 213 percent average increase in premiums between 1975 and 1976. Eleven firms also reported increased deductibles.

American Textile Manufacturers Institute, Inc.--This survey, conducted and analyzed by the Economic Information Division of the ATMI, includes responses from 148 textile firms. Product categories include industrial fabrics, apparel fabrics, home furnishings, carpeting and hosiery. It is estimated that the total universe of textile manufacturers is somewhat less than 6,000, with most firms in the less than \$5 million sales category.

The distribution of firms by size of sales is shown below together with the percentage of those respondents who carry some form of product liability insurance, including two companies which are self-insured.

Percentage of firms with product liability
insurance coverage, by size of sales:

<u>Size of Sales</u>	<u>Percentage of Responding</u>	
	<u>Firms with Insurance</u>	<u>No. of Firms</u>
Under \$5 million	50 percent	14
\$5 to \$10 million	64 percent	28
\$10 to \$50 million	84 percent	59
\$50 to \$100 million	94 percent	18
Over \$100 million	100 percent	<u>29</u>
		148

The above table illustrates that liability protection is more prevalent among larger companies than among smaller companies. This trend was also noted in the telephone survey and in a number of other trade association surveys. Most of the firms which are not currently insured believe they do not need insurance (21 out of 27). Six respondents indicated that insurance was too expensive but none indicated an inability to obtain insurance.

Most respondents were able to report their product liability insurance coverage and costs separately from their Comprehensive General Liability coverage. These data indicate that product liability insurance premiums doubled between 1971 and 1975 for the average firm. A median increase of 124 percent was reported for firms below \$5 million in sales, while firms with sales above \$100 million experienced a median increase of 67 percent. Subsequent data collected for 1967 indicate that sharp premium increases, on the order of an additional 100 percent over 1975 premiums, had occurred or were expected in 1976.

Smaller firms in the survey have increased their limits of liability during the last five years, but the large firms responding have not. With the exception of firms with sales below \$5 million, deductibles or self-retention levels have also increased, particularly for large firms.

Umbrella or excess layering of insurance was used more extensively in 1975 than 1971 and for larger amounts. For example, the median large firm increased the amount of its umbrella coverage from \$5 million to over \$22 million. This trend was not apparent for small firms. Generally, the cost increases for umbrella coverage experienced over the five-year period appear to be in direct relation to increases in umbrella policy coverage.

Information was also collected in this survey on new claims, pending claims, and settlements. Table III-34 shows the number of companies which have experienced one or more claims since 1970, the number of claims pending in 1970 and 1975, and damages sought in pending claims for the corresponding 2 years.

This table illustrates that less than 30 percent of the responding firms have experienced any claims or suits over the last five years. Half of the firms which did have claims are firms which have extensive product exposure with sales in excess of \$100 million. The rising trend in pending claims and damages sought is very apparent. Survey results indicated that while the number of new claims annually has not increased substantially since 1970, a large number of the claims and suits are still pending. Over 90 percent of pending claims are against firms with sales in excess of \$100 million annually.

Damages sought in pending claims have increased sharply since 1970, both on a total basis and a per claim basis. For example, the average amount sought per claim in 1970 was \$204,700. By 1975 the amount had increased to over a million dollars per claim. The amount of damages sought per claim is still judged to be underestimated by ATMI since one very large company did not report its pending claims and a number of other claims do not yet have information reported on the amount of damages sought.

This survey also provides the following insights with respect to court actions and settlements for large firms:

- For 12 large firms which were faced with 149 law suits, only 17 percent of the suits were settled through court judgments and of these, only half were won by the

plaintiff. About 32 percent were otherwise disposed of and slightly over half are still pending.

- The average cost of out-of-court settlements was about \$11,000. Average judgments for lost court cases approach \$20,000, but for all adjudicated cases (won and lost) the average is less than \$10,000.
- For 21 firms responding, the average amount of damages sought per claim in new claims filed has been highly variable: \$636,000 in 1971, \$874,000 in 1973, \$588,000 in 1975 and \$725,000 in 1976. No trends are apparent from this limited sample. Since the average amount of damages sought in claims and suits pending in 1975 was in excess of \$1 million per claim, but the average amount per new claim filed during the 1971-75 period was substantially less than \$1 million, it appears that many of the large claims filed since 1970 have not been settled.

Cost of Insurance and Claims in Industries and
Organizations Other than the Selected Industries

California Grain and Feed Association.--A sampling of 110 firms engaged in the manufacture and distribution of complete livestock and poultry feeds and ingredients was conducted by this association in October-November 1976. Of the 37 firms responding, about half distribute feed to the consumer-buyers, nine process a single product and distribute to feed manufacturers or consumer-buyers, and the remaining nine include brokerage operations, feed supplement, and special additive, or seed producers, or distributors. About fifty percent are firms with sales under \$5 million while the other half had sales between \$5 and \$50 million.

It is stated by the Association, which analyzed the survey, that:

In general it was determined that there is an extremely wide variation in coverage and premium costs between firms. Premiums paid seem to bear little or no correlation to claims filed or amounts paid out to settle the claims. In some

instances, those without any losses experienced the greatest increases in premiums for their product liability coverage, while some who had experienced substantial losses had comparatively little or, in one case, no increase.

Examination of the information supporting this conclusion indicates that while the relationship between premiums and claims/settlements is obscure, on the average, small firms seem to be experiencing fewer claims and smaller increases in premiums than larger firms.

Eighty-three percent of the small firms surveyed had some form of product liability insurance. For those firms reporting, premium increases between 1973 and 1976 ranged between 48 percent and 500 percent. All large firms were insured. Those reporting indicated premium increases for the same three-year period between 55 percent and 1,800 percent, with several reporting increases in the 400 percent to 1,000 percent range.

Small firms experienced only one claim in the five-year period ending in 1976. Larger firms reported about 20 claims since 1971, evenly distributed by year except for 1974 when eight claims were reported.

Damages sought for new claims have ranged from \$100 to \$1.4 million dollars. The average claim was \$90,000 and the average settlement was about \$4,000. Only two claims are currently pending with an average amount sought of \$85,000 per claim.

Water and Waste Water Equipment Manufacturers Association.-- This association represents manufacturers of equipment and supplies for the purification, treatment or flow measurement of water. Usable responses were obtained from 41 firms out of a survey of 246 member firms.

Thirty-seven of the responding firms either carry some form of product liability coverage or are self-insured. Insurance costs and claims were reported for the years 1970 through 1976. Insurance costs are shown in Table III-35.

Between 1970 and 1974 insurance costs increased at an average rate of somewhat less than 20 percent a year. However, between 1974 and 1975 the average rates doubled for firms in the \$1 to \$5 million sales category and increased by 169 percent for firms with sales over \$5 million.

The smallest firms reported considerably higher costs for insurance than the larger firms during the two years for which adequate data were available. However, the percentage increases since 1973 were not as large for the smallest firms as for the others.

Limits of liability for primary coverage appear to have changed very little for all categories. The survey indicated that medium and larger firms are assuming much higher self-retention levels (3 to 6 times as high) than they did in 1971.

Most firms carry some form of excess coverage. For firms in the \$1 to \$5 million sales category, premiums for this coverage have not changed appreciably over the last five years despite the fact that average limits of liability have increased from \$19 to \$28 million. Larger firms have doubled their liability limits and appear to be paying, on the average, about four times more for such coverage. Corresponding data for firms under \$1 million indicate reduced limits of liability at equal or higher cost. These estimates are based on a rather small number of responding firms.

The responding firms reported 67 product liability claims during the six-year period. The smallest firms accounted for only four of these claims while the firms with over \$5 million in sales had over 60 percent of the claims.

The total number of claims increased sharply from 1972 to 1973 and then leveled off. There does not appear to be any definite trend in the amount of damages sought in new claims. However, the total amount of damages sought in pending claims has been rising steadily. The claims experience of reporting firms is summarized in Table III-36.

During the six-year period, 28 claims or suits were settled at an average cost of about \$4,000.

Risk and Insurance Management Society.--This survey was conducted in the fall of 1976. Responses were received from about 370 firms, which represents somewhat less than 15 percent of the total membership. Respondents were predominantly large in size; the median firm had sales of \$350 million and 5,000 employees. About 54 percent of the firms are primarily engaged in manufacturing with the remaining 46 percent more or less equally distributed among wholesale/distribution, retailing and services.

Information was collected on estimated costs for primary and excess insurance coverage, handling costs, deductibles or self-retention levels, and limits of liability per occurrence.

It was reported that premiums for primary and excess coverage had increased about 200 percent from 1971 to 1975. It appears that much of this increase was sustained between 1971 and 1973, particularly with regard to excess coverage.

The average deductible or self-retention level has also increased by about 200 percent for both bodily injury and combined single limit coverage. The 1975 average of the latter is in the range of \$40,000 per firm. The average amount paid out per firm in settlements during 1975 is also estimated at about \$40,000.

Limits of liability increased about 100 percent during the five-year period from 1971 to 1975. The net effect is that insurance coverage for each dollar of expense, including premiums and self-retention costs, is now about half of what it was in 1971.

It is estimated by RIMS that two-thirds of the claims and suits were filed against firms in five industry groups. Inspection of preliminary data by the industry contractor indicated that SIC 20, Food and Kindred Products and SIC 30, Rubber and Plastic Products accounted for 60 percent of all claims reported in 1975.

The Society also indicated that the number of claims brought in the year of event increased 36 percent between 1971 and 1975 and that the dollar value of claims increased six percent.

Frequency of law suits did not increase but there was a 44 percent increase in reserves set aside for suits over the five-year period.

The number of new claims brought annually was reported in preliminary data to have increased from about 55 claims per firm in 1971 to 181 claims per firm in 1975. However, it appears that a small sample of companies (7) in one industry category accounted for much of this increase. If these firms are removed from the sample, the average number of claims per firm in 1975 would be 95. This represents a 72 percent increase since 1971 and a 15 percent increase since 1973.

It appears that the vast majority of claims brought are dropped or settled in the year in which they are filed. However, preliminary data indicate that the number of claims pending has tended to increase about in proportion to the increase in new claims brought.

RETORT, Inc.--RETORT, Inc., surveyed a number of manufacturers, distributors, and retailers throughout the United States. About 85 unprocessed responses were provided to the Task Force.

Questions asked in the survey dealt with the characteristics of the firm, insurance history, claims experience and insurance availability. Unfortunately, the quality of the responses was mixed, making a comprehensive analysis of trend information difficult.

The information that was obtained concerning insurance costs during the period from 1973 to 1976 is summarized in Table III-37. The largest increases took place between 1975 and 1976, with medium-sized firms having the biggest increases. The 310 percent increase occurring in 1976 for small firms, following an increase of 75 percent in the previous year, resulted in a cumulative increase during the 1973-76 period of about 410 percent. It should be noted that these averages are significantly influenced by a few firms that reported increases of 500 percent to 3,000 percent. For example, if one firm reporting a 2,000 percent increase between 1975 and 1976 is not included in the average,

the percentage increase for firms in the under \$2.5 million category for 1975-76 is 115 percent rather than 310 percent.

Data reported on claims, damages sought, and settlements showed no specific patterns other than that the amounts paid in settlements tend to be substantially lower than damages sought. It also appears that the number of claims and suits brought in the 24-month period of 1974-75 was about 35 percent higher than during the previous 24 months.

National Federation of Independent Business.--The National Federation of Independent Business (NFIB) has over 31,000 small, independent manufacturer members spread across a broad spectrum of manufacturing industries. The NFIB product liability survey was conducted in October 1976. A sample of one out of seven manufacturer members was selected for inclusion in the survey. Of the 4,214 questionnaires mailed, 1,296 firms responded for a response rate of 31 percent. The results of the survey are reported in detail in a report published by the NFIB.⁶

About 58 percent of the small manufacturing firms responding to the survey reported that they carry product liability insurance. The percentage of firms carrying product liability insurance increases with the size of firms. Among the smallest firms, those with gross receipts of less than \$50,000, only 28 percent reported carrying product liability insurance. This percentage increases progressively, to 78 percent for firms with gross receipts of \$1 million and over.

The major findings of the NFIB survey are summarized as follows:

- Approximately 9 percent of the firms reported that they could not afford to carry product liability insurance. Another 17 percent reported that they could not afford the desired limits of insurance. However, less than 1 percent reported that they could not obtain insurance at any price. About 3 percent of the firms reported that they have discontinued carrying product liability insurance because they can no longer afford it.

- Product liability insurance rates are rising rapidly. About 40 percent of the firms reporting expect their next premium increases to be 50 percent or more. About half of those firms expect the increases to be over 100 percent.
 - The number of product liability claims filed against responding firms in 1976 is estimated to be approximately double the number filed in 1972. The number of reported claims has been rising steadily throughout the 1972-76 period. The amount of damages paid in claims has also been rising progressively. As of the first nine months of 1976, the amount paid out was over 2.5 times as high as for the full year of 1972.
- A number of firms are canceling or postponing the introduction of new products, or dropping old products, because of the cost of product liability insurance, an inability to obtain product liability insurance, or because of the threat of product liability suits. About one in eight of the responding firms reported that a new product was not introduced because of product liability considerations. About one firm in twenty reported dropping a product for the same reason.

WHAT PRIOR GOVERNMENT-COLLECTED DATA SHOW

Introduction

There are no comprehensive accident and injury reporting systems either at the Federal or at the state government level. However, a number of special purpose reporting systems have been developed at both the Federal and state levels in conjunction with the administration of health and safety regulations and indemnity programs such as state Worker Compensation.

The industry contractor's work effort included an examination of a number of state and Federal accident and injury reporting systems. Useful data were acquired from several systems concerning product-related accidents in both the workplace and consumer areas. In several cases, sufficient data were available

to examine trends in accidents and injuries over a period of years.

Data on workplace injuries were obtained from Worker Compensation systems in six states. The Occupational Safety and Health Administration (OSHA) of the U. S. Department of Labor was able to furnish this information under a supplementary studies program being carried out by the U. S. Bureau of Labor Statistics. Injury data based on employers' first reports were obtained for 1974 for California, Maryland, Texas, Washington, and Wisconsin. Trend data based on closed compensation cases were obtained from New York for the period from 1966 to 1972.

Data on consumer product injuries were obtained from two Federal agencies. One source was the Consumer Product Safety Commission (CPSC) which receives reports filed by selected hospital emergency rooms with its National Electronic Injury Surveillance System (NEISS). The data from this source were available for the period from 1973 to 1975. Data on general aviation accidents were obtained from unpublished tabulations of aircraft accident reports compiled by the Federal Aviation Administration (FAA) from 1964 to 1975.

Workplace Injuries

Data on workplace injuries were derived from employers' first reports of injuries filed with state Worker Compensation boards and commissions and from closed compensation cases. The employers' first reports are the immediate reports of accidents and injuries filed at the time of occurrence, while closed compensation cases are the claims that have been settled by insurance carriers or adjudicated by state accident boards or commissions. The distinction is significant in that the preponderance of industrial injuries may not result in time lost from work or in claims being filed. However, both sources provide information on workplace injuries, the product or agent involved, the nature of the injury, and related information.

First report data for 1974 from the States of California, Maryland, Texas, Washington, and Wisconsin were analyzed to determine the incidence of accidents related to the products selected for study by the Task Force. The results of the

analysis indicate that these products accounted for 14.3 percent of the accidents in California, 9.9 percent in Wisconsin, 9.5 percent in Washington, 9.4 percent in Maryland, and 3.7 percent in Texas. Among the selected products, the two most frequently associated with workplace accidents, by a very substantial margin, were motor vehicles and cutting and forming tools.

Closed compensation cases from the State of New York were analyzed for the period from 1966 to 1972. About one-fifth of the cases during this period involved the products designated for study. There was no significant change in that proportion over the period. Motor vehicles and industrial machinery were again the products most frequently associated with accidents among the product groups selected for study. However, the percentage for industrial machinery decreased somewhat from 4.96 percent in 1966-70 to 3.35 percent in 1972. The percentage for motor vehicles remained unchanged at about 9.2 percent. The total number of industrial accidents reported in the New York closed claims data increased by about 2.5 percent between 1966-70 and 1972.

The use of closed compensation claims data enabled the contractor to derive estimates of the approximate severity of the injuries, which is related to the number of weeks of benefits paid and the amount of benefits paid. The most severe injuries were found to be associated with aircraft accidents, followed by chemicals, ladders, and automobiles. However, there was no indication that there was any change in the severity or in the frequency of accidents associated with these products during the 1966-72 period. The same patterns were found for all product-related accidents reported in the New York closed claims data.

These limited available data on workplace accidents confirm that the products selected for study by the Task Force were frequently involved in workplace injuries. Differences in the percentages of total industrial injuries associated with these products in the various states studied can probably be attributed to the differences in industrial composition among the states, and consequently, the variation in product exposure.

Data for analyzing the trends in product-related accidents were unfortunately available only for New York State. However,

the analysis of over 100,000 closed claims annually for the seven-year period from 1966 to 1972 indicates that the frequency and severity of workplace injuries related to these products have remained relatively constant. The same also appears to be true for the individual product groups that were analyzed.

The results of the analyses of workplace injuries as reported to the state Worker Compensation systems are presented in detail in Chapter III of the Industry Study.

Consumer Product Injuries

Data from the Consumer Product Safety Commission were analyzed to develop a profile of consumer product-related injuries and to determine whether there were any trends that may be relevant to the product liability problem. Data were available from the National Electronic Injury Surveillance System (NEISS) for the years of 1973, 1974, and 1975. The data were reported by 119 selected hospital emergency rooms. The agent of injury was reported, as well as the severity of the injury, on a scale of 0 to 8.

Injuries were reported for about 950 different product codes in 1974 and 1975. This was an increase from 725 products in 1973 when the program was started.

A severity index has been devised for NEISS which assigns progressively higher, judgmental weights to nine different categories of injuries, ranging in value from 0 to 10. By multiplying the number of injuries reported times the average severity per injury, another measure of product risk is derived called the Frequency/Severity Index (FSI).

A small number of products caused a majority of the injuries reported in each of the three years. About 25 consumer products accounted for approximately three-fifths of the injuries reported by NEISS. The number of injuries reported for all products totaled 315,371 in 1973, 305,508 in 1974, and 386,739 in 1975. In terms of frequency, stairs and bicycles were the most hazardous products, accounting for 6.9 percent and 5.6 percent of the injuries reported in 1975. Based on the Frequency/Severity

Index, these two products also ranked number one and two as the most hazardous products.

Among the consumer products selected for this study, motor vehicles, drugs, and lawnmowers ranked among the top 15 most hazardous products based on the FSI.

Aviation accidents are not reported to the CPSC information system since they come under the jurisdiction of the Federal Aviation Administration. The FAA collects and analyzes data annually on the incidence, causes, and characteristics of general aviation accidents.

A time series of general aviation accidents was prepared by the industry contractor from FAA data for the period from 1965 to 1976 for the purpose of analyzing the trends in accidents. General aviation accidents were divided into three broad categories: product-related, human-related, and other. Injuries were classified according to severity as fatal, serious, minor, and none/unknown.

Analysis of the FAA data revealed that while the total number of accidents almost doubled between 1965 and 1974, the number of accidents per thousand hours of flying time remained essentially constant throughout this time period. Product-related accidents accounted for less than half of all minor injuries reported, about one-fourth of all serious injuries, and less than one-third of all fatalities. It was also found that the proportion of product-related injuries remained constant during the period from 1965 to 1974.

The results of the analyses of consumer product-related injuries are discussed in detail in Chapter III of the Industry Study.

NOTES TO CHAPTER III

¹See Interagency Task Force on Product Liability, Product Liability: Industry Study, Volume II, Appendix B (Washington: U.S. Department of Commerce, May 1977).

²In this chapter the term "umbrella" insurance is used to represent all forms of excess liability insurance coverage.

³Interagency Task Force on Product Liability, Product Liability: Industry Study, Volume I (Washington: U.S. Department of Commerce, May 1977), p. IV-39.

⁴All of the data in this section are from the report published by the Machinery and Allied Products Institute presenting the results of their survey--Machinery and Allied Products Institute, Products Liability: A MAPI Survey (Washington: Machinery and Allied Products Institute, August 1976).

⁵This average does not include one firm reporting a 20,000 percent increase.

⁶National Federation of Independent Business, NFIB Survey Report on Product Liability (Washington: National Federation of Independent Business, January 1977).

Table III-1.--Number of Firms in the Sample, Number of Responses and
Response Rates, by Product and Sales Categories

Product Category	Less than \$2.5 million			\$2.5 to \$100 million		
	Number Contacted	Number Responses	Percent Response	Number Contacted	Number Responses	Percent Response
Industrial products						
Industrial machinery	18	14	78	20	11	55
Metal castings	18	11	61	20	13	65
Grinding wheels	16	8	50	18	15	83
Industrial chemicals	17	12	71	21	18	86
Consumer products						
Power mowers	18	15	83	18	14	78
Automotive components	20	9	45	21	14	67
Pharmaceuticals	22	12	55	19	12	63
Medical devices	20	13	65	19	13	68
Aircraft components	18	9	50	18	9	50
All product cate- gories	167	103	62	174	119	68
Product Category	\$100 million and over			All Firms		
	Number Contacted	Number Responses	Percent Response	Number Contacted	Number Responses	Percent Response
Industrial products						
Industrial machinery	20	18	90	58	43	74
Metal castings	18	14	78	56	38	68
Grinding wheels	8	3	38	42	26	62
Industrial chemicals	17	14	82	55	44	80
Consumer products						
Power mowers	19	8	42	55	37	67
Automotive components	19	15	79	60	38	63
Pharmaceuticals	19	16	84	60	40	67
Medical devices	17	15	88	56	41	73
Aircraft components	21	12	57	57	30	53
All product cate- gories	158	115	73	499	337	68

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-2.--Average Total Gross Sales Per Firm, by Product
and Sales Category--1975 (thousands of dollars)

Product Category	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million and over		All Firms ¹	
	Sales	Number	Sales	Number	Sales	Number	Sales	Number
Industrial products								
Industrial machinery	1,268	13	11,269	11	416,127	18	181,684	42
Metal castings	621	9	7,031	12	508,099	14	205,809	35
Grinding wheels	1,907	8	6,944	15	1,277,150	3	151,956	26
Industrial chemicals	2,006	11	28,598	17	1,294,414	13	422,820	41
Consumer products								
Power mowers	457	14	27,176	13	560,796	8	138,459	35
Automotive components	772	9	77,334	14	375,871	15	177,045	38
Pharmaceuticals	641	11	13,867	11	682,903	16	291,737	38
Medical devices	363	11	46,222	12	347,433	15	151,846	38
Aircraft components	3,062	9	16,554	8	590,601	12	249,903	29
All product cate- gories	1,172	95	27,205	113	601,860	114	222,974	322

¹Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-3.--Extent of Current Product Liability
Coverage, by Size Category

Size of Firms	Percentage		Number	
	Yes	No	Yes	No
Less than \$2.5 million	71.3	28.7	72	29
\$2.5 to \$100 million	87.4	12.6	104	15
\$100 million and over	97.3	2.7	110	3
All size categories	85.9	14.1	286	47

Source: Product Liability Industry Telephone Survey, Gordon Associates, Inc., December 1976.

Table III-4.--Reasons for not Carrying Product Liability Insurance--Percent of Total Responses by Size Category

	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million and over		All Firms ¹	
	Percent	Number	Percent	Number	Percent	Number	Percent	Number
Too expensive	11.7	12	4.2	5	1.8	2	5.6	19
Don't think they need coverage	10.7	11	3.4	4	-	0	4.5	15
Can't obtain coverage at any cost	2.9	3	0.8	1	-	0	1.2	4
Previous coverage recently canceled	-	0	0.8	1	-	0	0.3	1
Prefer to be self-insured	1.0	1	-	0	0.0	1	0.6	2
Other	2.9	3	3.4	4	-	0	2.1	7

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-5.--Comprehensive General Liability Coverage--Average Cost
Per \$1,000 Sales--1971 to 1976, by Size Category

Size Category	Year											
	1971		1972		1973		1974		1975		1976	
	Cost	Number ¹	Cost	Number ¹	Cost	Number ¹	Cost	Number ¹	Cost	Number ¹	Cost	Number ¹
Less than \$2.5 million	\$2.87	20	\$3.42	24	\$3.52	30	\$4.16	41	\$4.86	52	\$7.42	49
\$2.5 to \$100 million	1.25	39	1.50	56	1.55	71	1.47	76	2.36	79	3.88	75
\$100 million and over	0.67	75	0.74	84	0.69	87	0.67	93	0.89	95	1.24	89
All size categories	1.17	134	1.39	164	1.47	188	1.64	210	2.32	226	3.59	213

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-6.--Estimated Average Product Liability Insurance Cost Per \$1,000
Sales Under Comprehensive General Liability Plans by Size Category-1971-76

Year	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million and over		All Firms	
	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹
1971	\$1.10	13	\$0.93	38	\$0.54	59	\$0.74	110
1972	1.14	17	0.91	51	0.60	67	0.79	135
1973	1.00	22	1.06	61	0.59	70	0.84	153
1974	1.63	28	1.00	66	0.55	75	0.91	169
1975	2.58	36	1.47	68	0.78	77	1.40	181
1976	5.32	38	3.23	64	1.09	71	2.81	173

¹Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-7.--Estimated Average Primary Product Liability Insurance Costs
Per \$1,000 in Designated Product Category Sales--1971-76

Product Category	Year						1976 Cost Number ¹					
	1971 Cost Number ¹	1972 Cost Number ¹	1973 Cost Number ¹	1974 Cost Number ¹	1975 Cost Number ¹	1976 Cost Number ¹						
Industrial products												
Industrial machinery	\$0.54	13	\$0.76	17	\$0.56	21	\$0.62	21	\$0.85	21	\$1.79	20
Metal castings	0.66	8	0.55	10	0.46	12	0.51	14	0.63	14	1.67	14
Grinding wheels	2.01	9	7.63	12	5.91	12	3.80	14	3.80	15	7.21	16
Industrial chemicals	1.13	7	.98	8	.84	9	.69	11	.98	14	2.56	16
Consumer products												
Power mowers	1.46	9	1.61	9	2.08	11	1.44	13	2.65	13	5.42	14
Automotive components	1.07	12	1.38	15	1.07	17	1.16	17	1.78	21	2.89	22
Pharmaceuticals	1.52	7	1.62	9	2.05	11	2.22	14	5.53	16	10.84	16
Medical devices	2.28	6	1.90	9	2.04	10	2.17	11	4.37	13	11.15	14
Aircraft components	10.13	5	8.61	8	10.23	9	6.50	10	8.05	10	11.11	8
All categories	1.83	76	2.61	97	2.43	112	1.91	125	2.88	137	5.53	140

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-8.--Umbrella Coverage Average Costs Per \$1,000,
by Size Category--1971-76

Year	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million and over		All Firms	
	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹
1971	3.86	8	0.47	30	0.45	76	0.70	114
1972	3.78	11	0.59	42	0.44	87	0.75	140
1973	3.89	17	0.47	52	0.44	96	0.81	165
1974	2.71	23	0.45	67	0.38	103	0.68	193
1975	3.20	24	0.60	73	0.34	105	0.77	202
1976	3.52	23	1.44	73	0.84	99	1.38	195

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-9.--Average Deductible or Self-Insurance Retention Levels, by Size Category--1971-76
(thousands of dollars)

	Year					
	1971	1972	1973	1974	1975	1976
	Number ¹	Number ¹	Number ¹	Number ¹	Number ¹	Number ¹
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
\$100 million and over						
Bodily injury	38.4	11	35.3	12	71.2	14
Combined PD & BI	54.3	27	206.2	34	208.6	36
					85.1	15
					207.4	40
						158.4
						334.5
						43
\$2.5 to \$100 million						
Bodily injury	5.7	5	16.8	7	12.8	10
Combined PD & BI	57.3	10	47.8	13	44.4	14
					12.6	11
					33.6	19
						12.0
						120.4
						23
Less than \$2.5 million						
Bodily injury	0.1	1	0.3	4	0.2	3
Combined PD & BI	13.2	4	10.7	5	8.9	6
					0.4	6
					8.9	6
						84.3 ²
						7.4
						8
All size categories						
Bodily injury	26.5	17	23.9	20	41.7	27
Combined PD & BI	51.0	41	152.0	48	146.2	56
					44.3	32
					138.3	65
						90.2
						232.6
						74

¹ Number indicates the number of firms responding.

² Increase is due to one firm which purchased a \$750,000 deductible policy. If this firm is removed from the calculation, the average rate falls to under \$1,000.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-10.--Number and Percent of Firms Reporting
Any Product Liability Claims, by Size Category--1971-76

Claims	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million and over		All Firms	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
All products								
Yes	18	17.7	58	49.6	109	95.6	185	55.6
No	84	82.3	59	50.4	5	4.4	148	44.4
Specified products								
Yes	12	12.4	46	40.0	83	76.1	141	43.9
No	85	87.6	69	60.0	26	25.9	180	56.1

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-11.--Average Number of Pending Claims,
by Product Category--1971-76

Product Category	1971		Year 1972		1973	
	Number of Claims/Firm	Number ¹	Number of Claims/Firm	Number ¹	Number of Claims/Firm	Number ¹
Industrial products						
Industrial machinery	1.9	36	2.2	36	6.00	35
Metal castings	1.9	35	2.9	35	3.9	35
Grinding wheels	3.6	25	3.9	25	4.3	25
Industrial chemicals	0.4	32	1.7	34	3.2	36
Consumer products						
Power mowers	6.2	33	9.1	33	10.2	33
Automotive components	1.8	26	3.3	27	4.0	27
Pharmaceuticals	10.1	32	9.1	32	10.1	32
Medical devices	1.9	33	3.7	35	6.4	36
Aircraft components	3.5	21	6.3	23	7.7	23
All product cate- gories	3.5	273	4.6	280	6.2	282

Product Category	1974		Year 1975		1976	
	Number of Claims/Firm	Number ¹	Number of Claims/Firm	Number ¹	Number of Claims/Firm	Number ¹
Industrial products						
Industrial machinery	7.1	36	10.1	38	18.1	39
Metal castings	4.9	35	6.5	35	8.6	35
Grinding wheels	6.6	25	7.3	25	11.4	25
Industrial chemicals	4.6	37	10.2	38	8.5	36
Consumer products						
Power mowers	16.9	34	19.3	34	48.1	35
Automotive components	32.2	29	39.0	29	36.9	28
Pharmaceuticals	11.3	32	12.3	32	13.7	33
Medical devices	12.5	38	12.7	39	12.9	39
Aircraft components	8.3	23	11.0	23	11.3	24
All product cate- gories	11.4	289	14.0	293	18.9	294

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-12.--Average Number of New Claims Per Firm
by Size Category--1971-76

Year	Less than \$2.5 million New Claims	Number	\$2.5 to \$100 million New Claims	Number	\$100 million and over New Claims	Number	All Firms New Claims	Number ¹
1971	.02	99	.9	112	16.1	69	4.3	280
1972	.02	99	1.2	114	36.9	77	10.3	290
1973	.06	99	1.2	114	39.0	80	11.1	293
1974	.04	100	2.3	116	41.2	81	12.2	297
1975	.08	100	1.6	116	38.2	85	11.4	301
1976	.07	100	1.3	115	33.5	84	9.9	299

¹Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-13.--Average Number of New Claims Per Firm
by Product Category--1971-76

Product Category	Year									
	1971	1972		1973		1974		1975		1976
	New Claims	Number ¹	New Claim	Number ¹	New Claims	Number ¹	New Claims	Number ¹	New Claims	Number ¹
Industrial products										
Industrial machinery	4.4	38	5.4	38	6.8	37	6.1	38	5.5	39
Metal castings	.8	34	1.5	34	1.2	34	1.9	34	2.8	34
Grinding wheels	4.6	26	6.6	26	6.6	26	7.7	26	7.7	26
Industrial chemicals	6.3	35	8.5	36	8.5	38	10.9	38	6.8	38
Consumer products										
Power mowers	3.7	35	5.7	35	7.6	36	12.7	37	12.6	37
Automotive components	14.0	29	24.0	31	25.9	31	22.5	31	19.8	32
Pharmaceuticals	2.2	33	32.1	35	34.1	35	33.0	35	32.6	35
Medical devices	.9	31	1.5	33	2.1	34	6.3	35	5.9	37
Aircraft components	1.8	19	6.0	22	5.9	22	7.1	23	9.1	23
All product categories	4.3	280	10.3	290	11.1	293	12.2	297	11.4	301
										299

¹Number indicates the number of firms responding.

*The low average for this product category in 1971 significantly reduces the overall average as well.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-14.-Total Damages Sought in Pending Claims,
Average Amount Per Firm, by Size Category--1971-76
(thousands of dollars)

Year	Less than \$2.5 million (\$000)	Number	\$2.5 to \$100 million (\$000)	Number	\$100 million and over (\$000)	Number	All Firms ¹ (\$000)	Number
1971	0.3	99	102.1	106	1,936.7	52	434.1	257
1972	2.6	98	160.5	108	2,148.1	52	501.1	258
1973	0.0	98	518.0	107	4,518.6	52	1,129.9	257
1974	0.1	98	953.3	108	5,249.2	53	1,471.7	259
1975	3.4	98	1,642.9	107	6,142.3	55	1,976.7	260
1976	2.1	97	1,394.3	107	13,892.6	55	3,527.0	259

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-15.-Total Damages Sought in New Claims,
Average Amount Per Firm, by Size Category--1971-76
(thousands of dollars)

Year	Less than \$2.5 million (\$000)	Number	\$2.5 to \$100 million (\$000)	Number	\$100 million and over (\$000)	Number	All Firms ¹ (\$000)	Number
1971	1.1	99	130.8	103	1,978.2	55	476.2	257
1972	2.6	98	121.7	106	4,002.4	59	947.9	263
1973	1.7	97	297.3	103	6,473.8	60	1,612.3	260
1974	2.8	98	1,264.0	105	2,308.1	57	1,017.5	260
1975	8.1	99	843.9	108	2,470.3	58	887.7	265
1976	4.3	98	178.1	106	7,496.0	57	1,711.0	261

¹ Number indicates the number of firms responding

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-16.--Average Annual Settlement Amounts Per Firm
by Size Category--1971-76
(thousands of dollars)

Year	Less than \$2.5 million (\$000) Number	\$2.5 to \$100 million (\$000) Number	\$100 million and over (\$000) Number ¹	All Firms ¹ (\$000) Number
1971	0.9 99	1.4 112	45.4 69	12.1 280
1972	0.2 99	5.3 112	99.0 78	28.8 289
1973	0.6 99	3.2 114	96.2 82	28.2 295
1974	0.1 100	2.7 115	97.5 84	28.4 299
1975	0.1 100	6.1 114	70.2 84	22.2 298
1976	0.0 100	7.5 111	92.2 78	27.8 289

¹ Number indicates the number of firms responding.

Source: Product Liability Industry Telephone Survey, Gordon Associates Inc., December 1976.

Table III-17.--Summary of Trade Associations and Other Organizations
Participating in the Product Liability Study

<u>Trade Associations</u>	<u>Number of Completed Survey</u>	<u>Information Provided</u>
Cast Metals Federation	250	Individual records
Industrial Heating Equip. Assoc.	53	Individual records
American Die Casting Inst.	52	Individual records
Water & Waste Water Equip. Mfrs. Assoc.	41	Individual records
Woodworking Machinery Mfrs. of America	46	Summary statistics & text
Woodworking Machinery Distrib. Assoc.	32	Data array
Railway Progress Institute	13	Individual records
Society of the Plastics Ind.	366	Statistical tables
Machinery & Allied Products Institute	210	Summary statistics & text
Automotive Parts & Accessor- ies Assoc.	110	Summary statistics & text
Recreation Vehicle Industry Assoc.	67	Summary statistics, tables
Nat'l. Machine Tool Builders Assoc.	60	Summary statistics
American Textile Machinery Assoc.	46	Summary statistics
American Textile Mfrs. Inst.	148	Data array
Calif. Grain & Feed Assoc.	37	Summary statistics, text, quotations
Health Industries Mfrs. Assoc.	48	Summary text
General Aviation Mfrs. Assoc.	35	Summary text
Grinding Wheel Institute	--	Summary text
<u>Other Participating Organizations</u>		
RETORT, Inc.	87	Individual records
Risk and Insurance Management Society	371	Data array, magnetic tape records
National Federation of Independent Business	1,296	Summary statistics & text

Source: Respective Trade Associations and Other Organizations--
data compiled by Gordon Associates, Inc., and U. S. Department of
Commerce, December 1976.

Table III-18.--Size Characteristics of Respondents to the
Trade Association Surveys

	Large Over \$100 mil. <u>Annual Sales</u>	High Medium (\$50-100 mil. <u>Annual Sales</u>	Low Medium (\$5-50 mil. <u>Annual Sales</u>	Small (Under \$5 mil. <u>Annual Sales</u>)
<u>Product Category</u>				
<u>Automotive Components:</u>				
Automotive Parts and Accessories Assoc.	Not Available			
Recreation Vehicle Industry Assoc.	Not Available			
<u>Aircraft Components:</u>				
General Aviation Mfrs. Assoc.	6(17%)	21(60%)		8(23%)
<u>Industrial Machinery:</u>				
Woodworking Machinery Distributors Assoc.	Not Available			
Woodworking Machinery Mfrs. of America	1(2%)	12(27%)		31(70%)
American Textile Machinery Assoc.	--	3(7%)	12(26%)	31(67%)
Industrial Heating Equipment Assoc.	1(2%)	2(4%)	19(36%)	31(58%)
Railway Progress Inst.	6(46%)	4(31%)	3(23%)	--
National Machine Tool Builders Assoc.	8(31%)	23(38%)		29(48%)
<u>Metal Castings:</u>				
American Die Casting Institute				
Members	--	1(2%)	16(36%)	27(61%)
Affiliates	3(27%)	--	1(13%)	4(50%)
Survey-Overall	3(6%)	1(2%)	17(33%)	31(60%)
Cast Metals Federation	9(3%)	6(2%)	106(43%)	128(51%)
<u>Grinding Wheels:</u>				
Grinding Wheels Inst.	Not Available			
<u>Industrial Chemicals:</u>				
Society of the Plastics Industry				
Processors	5(2%)	3(1%)	56(28%)	135(68%)
Materials Suppliers	16(50%)	5(9%)	11(21%)	21(40%)
Other (tool, molding machines)	2(2%)	2(2%)	25(22%)	83(73%)
Survey-Overall	23(3%)	10(3%)	92(35%)	239(65%)

<u>Product Category</u>	<u>Large</u> <u>(Over \$100 mil.</u> <u>Annual Sales)</u>	<u>High Medium</u> <u>(\$50-100 mil.</u> <u>Annual Sales)</u>	<u>Low Medium</u> <u>(\$5-50 mil.</u> <u>Annual Sales)</u>	<u>Small</u> <u>(Under \$5 mil.</u> <u>Annual Sales)</u>
<u>Medical Devices:</u>				
Health Industry Mfrs. Assoc.	Not available but industry dominated numerically by small business			
<u>Other:</u>				
California Grain and Feed Assoc.	--	--	12(60%)	8(40%)
Water and Waste Water Equipment Mfrs. Assoc.	--	--	16(39%)	25(61%)
American Textile Mfrs. Institute	29(20%)	18(12%)	87(59%)	14(9%)
<u>Diversified Surveys:</u>				
Machinery and Allied Products Institute	103(49%)	29(14%)	53(25%) ¹	25(12%) ²
Risk and Insurance Management Society	263(82%)	27(8%)	32(10%)	--
RETORT, Inc.	Not available			
National Federation of Independent Business	Not available but all presumed to be small.			

Note: Percentage totals may not add due to rounding

¹Represents firms with sales of \$10 to \$50 million.

²Represents firms with sales under \$10 million.

SOURCE: Respective Trade Associations and other Organizations--data compiled by Gordon Associates, Inc., and U. S. Department of Commerce, December 1976.

Table III-19.--Reasons Given for Not Carrying Product Liability
Insurance in Trade Association Surveys

Trade Association and Predominant Size of Firms Reporting	Reasons For Not Carrying Product Liability						No. of Firms not Insured	% of Association Sample
	Self- Insured ¹	Too Expensive	Don't Need	Can't Get	Canceled	Not Given		
<u>Small:</u>								
Health Industry Manufacturers Assoc.	3 ²	3	--	7 ²	--	--	10	21
Water & Waste-Water Equip. Mfrs.	3	1	1	--	--	2	7	17
American Die-Casting Institute	1	2	4	2 ⁴	1	--	10	19
Cast Metals Federation	3	11	16	3	3	--	36	18
Society of the Plastics Industry	9	9	12	3	3	5	41	11
Woodworking Machinery Manufacturers	2	--	--	--	1	--	3	7
American Textile Machinery Assoc.	--	--	2	--	--	--	2	4
Industrial Heating Equip. Assoc.	2	1	--	--	--	1	4	8
<u>Medium-Small:</u>								
American Textile Mfrs. Institute	--	6	21	--	--	--	27	18
California Grain & Feed Assoc.	--	2	--	--	1	--	3	8
<u>Large:</u>								
Machinery & Allied Products Institute	8	3	--	--	--	--	8	4
Railway Progress Institute	--	--	--	--	--	--	0	0
Risk & Insurance Mngmt. Society	--	--	--	--	--	--	0	0
<u>Unknown:</u>								
Automotive Parts & Accessories Assoc.	--	--	--	2 ²	7 ²	--	9	8
Recreation Vehicle Industry Assoc.	3	--	--	--	3	--	3	4
TOTALS	34	32	56	17	16	8	163	--

¹Includes 4 firms with very high deductible levels--exceeding loss expectation.

²Figure from text; not statistically supported.

³Mentioned but no figures provided.

⁴New firms having trouble finding coverage.

Source: Respective Trade Associations--data compiled by Gordon Associates Inc., and U.S. Department of Commerce, December 1976.

Table III-20.--Product Liability Insurance--Average Annual
Cost Per Thousand Dollars of Sales--(ATMA)

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
Sales under \$2 million		
1976	\$11.62	12
1975	9.84	13
1974	.83	12
Sales from \$2 to \$10 million		
1976	\$5.79	11
1975	.60	9
1974	.52	9
Sales over \$10 million		
1976	\$ 1.11	8
1975	.78	10
1974	.58	10
All firms		
1976	\$ 6.84	31
1975	4.41	32
1974	.66	31

Table III-21.--Claims Experience of Reporting Firms--(ATMA)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1976	14	\$3,443,236	6
1975	31	8,776,120	10
1974	22	3,532,532	6

Claims settled out of court

<u>Year</u>	<u>No. of Claims</u>	<u>Amount Paid</u>
1976	1	\$ 4,925
1975	3	275,272
1974	5	32,440

Claims pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1976	18	\$5,682,347	5
1975	16	6,327,000	9
1974	12	2,470,060	6

Table III-22.--Product Liability Insurance--Average Annual Cost
Per Thousand Dollars of Sales.--(IHEA)

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
Sales under \$5 million		
1975	\$1.88	19
1974	1.14	14
1973	.86	12
1972	*.69	7
1971	.66	7
Sales of \$5 to \$10 million		
1975	\$.79	3
1974	.64	2
1973	.62	2
1972	.64	2
1971	.67	2
Sales over \$10 million		
1975	\$1.43	7
1974	1.00	6
1973	1.00	5
1972	.86	4
1971	1.21	3
All firms		
1975	\$1.95	29
1974	1.27	22
1973	1.06	19
1972	*1.01	13
1971	.95	12

*Excludes one firm that reported \$8.72 per thousand.

Table III-23.--Claims Experience of Reporting Firms--(IHEA)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1975	33	\$53,637,000	14
1974	17	6,857,000	10
1973	15	1,826,000	9
1972	8	1,417,000	7
1971	15	586,000	8

Claims settled out of court

<u>Year</u>	<u>No. of Claims</u>	<u>Amount Paid</u>
1975	5	\$391,000
1974	3	67,000
1973	2	91,000
1972	1	25,000
1971	7	78,800

Court judgments

<u>Year</u>	<u>Suits Won</u>	<u>Suits Lost</u>	<u>Judgments Paid</u>
1975	0	1	\$65,000
1974	0	1	10,000
1973	1	0	-0-
1972	0	0	-0-
1971	0	0	-0-

Claims/suits pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1975	57	\$79,600,200	18
1974	32	9,582,500	13
1973	22	4,935,500	10
1972	11	4,733,000	7
1971	5	3,588,000	4

Table III-24.--Claims Experience During the Period
From 1970 to 1975.--(MAPI)

<u>Item</u>	<u>Number</u>	<u>Amount</u>	<u>No. of Firms</u>
(1) Total claims presented	16,785	\$366,905,041	176
(2) Claims paid without court action	4,396	8,675,282	175
(3) Claims rejected	2,858	35,414,537 ¹	138
(4) Claims pending	3,272	176,663,709	159
(5) Suits filed on claims	11,768	828,465,205 ²	156
(6) Judgments for claimants	212	22,059,978	152
(7) Suits settled out of court	1,218	115,794,838	156
(8) Judgments for defendant	464	375,124,013 ³	133
(9) Suits pending	3,203	113,841,101	161

¹ Many respondents reported the number of claims rejected without indicating amounts; therefore this amount represents only 892 of the rejected claims.

² About 34 percent of this amount is attributed to one company.

³ Many respondents reported the number of judgments won without reporting the amounts involved; therefore this amount represents only 197 judgments.

Table III-25.--Claims Experience of Reporting Firms.--(RPI)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1975	20	\$96,000,000	5
1974	12	88,000,000	5
1973	6	28,000,000	5
1972	9	6,000,000	5
1971	3	5,000,000	5

Claims/suits pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1975	21	\$150,000,000	5
1974	18	59,000,000	5
1973	13	35,000,000	5
1972	11	11,000,000	5
1971	5	6,000,000	5

Table III-26.--Insurance Cost Per Firm--(WMMA)

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
-------------	---------------------	---------------------

Primary product liability insurance

1976	\$30,089	26
1975	12,607	29
1974	5,525	25
1973	4,502	20
1972	5,338	20
1971	3,084	17

Excess coverage

1976	\$ 7,474	12
1975	7,434	15
1974	3,078	11
1973	2,665	7
1972	698	6
1971	815	5

Table III-27.--Claims Experience of Reporting Firms--(WMMA)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
*1976	37	\$ 9,360,000	16
1975	54	21,863,046	17
1974	48	14,273,000	15
1973	20	6,758,700	9
1972	32	6,791,750	14
1971	19	2,919,107	11

Estimated suits filed (dollar amount represents amount reserved)

<u>Year</u>	<u>Number</u>	<u>Amount</u>
*1976	9	\$1,534,000
1975	15	1,193,000
1974	20	2,715,050
1973	6	183,500
1972	9	881,667
1971	4	1,395,757

Claims pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>
*1976	27	\$ 5,893,500
1975	30	10,438,000
1974	17	6,516,750
1973	10	3,235,250
1972	11	3,086,750
1971	3	1,195,000

*Data for 1976 are incomplete.

Table III-28.--Primary Product Liability Insurance--Average and Median Annual Costs Per Thousand Dollars of Sales--(SPI)

<u>Year</u>	<u>Average Cost</u>	<u>Median Cost</u>	<u>No. of Firms</u>
All respondents			
1976	\$2.20	\$.99	168
1975	1.35	.50	163
1974	.79	.41	133
1973	.62	.29	104
1972	.70	.38	88
1971	.79	.39	59
1970	.68	.30	47
Processors			
1976		.65	100
1975		.38	98
1974		.29	78
1973		.27	63
1972		.30	48
1971		.29	33
1970		.30	28
Material suppliers			
1976		1.13	14
1975		.49	13
1974		.39	9
1973		.29	7
1972		.39	9
1971		.39	7
1970		.29	5
Mold and tool makers			
1976		.98	14
1975		.39	11
1974		.45	9
1973		.29	5
1972		.29	5
1971		.29	3
1970		.29	3
Machinery manufacturers			
1976		2.50	40
1975		1.22	41
1974		.98	37
1973		.79	29
1972		.90	26
1971		.95	16
1970		.49	11

Table III-29.--Claims Experience For All Respondents--(SPI)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>	<u>Average Amount Per Claim*</u>
**1976	228	\$98.1 million	508,082
1975	357	40.7 million	122,606
1974	310	47.4 million	163,972
1973	226	40.2 million	196,889
1972	187	17.1 million	98,846
1971	85	17.4 million	248,603
1970	81	6.1 million	95,297

Claims settled out of court

<u>Year</u>	<u>No. of Claims</u>	<u>Amounts Paid</u>
**1976	52	\$ 431,949
1975	67	1,445,441
1974	37	364,706
1973	32	310,067
1972	42	453,965
1971	26	303,700
1970	31	238,534

Court judgments

<u>Year</u>	<u>Suits Won</u>	<u>Suits Lost</u>	<u>Judgments Paid</u>
**1976	4	3	\$ 66,000
1975	7	5	229,500
1974	4	9	492,000
1973	4	5	29,000
1972	8	0	-0-
1971	6	2	97,757
1970	7	7	60,000

Claims/suits pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>
1976*	254	\$150.2 million
1975	234	77.1 million
1974	181	73.2 million
1973	95	52.4 million
1972	79	37.5 million
1971	60	19.4 million
1970	52	14.4 million

* Companies did not report amount of damages sought for all claims reported. These averages are based only on those claims for which amounts were reported.

**Data for 1976 are incomplete.

Table III-30.--Primary Product Liability Insurance--Average Annual
Cost Per Thousand Dollars of Sales.--(CMF)

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
Sales under \$5 million		
1976	\$1.25	60
1975	.81	57
1974	.55	36
1973	.55	25
1972	.58	17
1971	.47	13
Sales of \$5 to \$10 million		
1976	\$1.31	27
1975	.71	27
1974	.56	21
1973	.34	16
1972	.40	12
1971	.43	10
Sales over \$10 million		
1976	\$1.04	34
1975	.40	31
1974	.32	30
1973	.32	28
1972	.40	26
1971	.43	24
All firms		
1976	\$1.20	121
1975	.68	115
1974	.47	87
1973	.41	69
1972	.46	55
1971	.44	47

Table III-31.--Claims Experience of Reporting Firms--(CMF)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>
1975	26	\$ 9,676,000
1974	14	4,050,000
1973	13	1,270,000
1972	13	825,000
1971	5	1,300,000

Claims settled out of court, 1971-75

<u>Size of Firm</u>	<u>No. of Claims</u>	<u>Amount Paid</u>
Under \$5 million	4	\$ 18,300
\$5 to \$10 million	6	66,000
Over \$10 million	13	371,000
All Firms	23	455,300

Court judgments, 1971-75

Total court suits	5
Won by defendant	3
Lost by defendant	2
Judgments Paid	\$451,000

Claims/suits pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>
1975	20	\$9,650,000
1974	8	3,450,000
1973	6	2,500,000
1972	3	1,705,000
1971	2	1,500,000

Table III-32.--Average Insurance Costs Per Firm--(ADCI)

Primary product liability insurance

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
1975	\$21,887	26
1974	17,762	21
1973	12,400	19
1972	12,671	15
1971	11,132	14

Umbrella coverage

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
1975	\$ 4,033	29
1974	3,642	24
1973	3,509	21
1972	3,613	15
1971	2,580	13

Table III-33.-Product Liability Insurance-Average Annual Cost
Per Thousand Dollars of Sales-(RVIA)

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms*</u>
Manufacturers		
1976	\$3.40	22
1975	2.67	10
1974	1.78	16
1973	1.69	16
1972	1.88	12
1971	1.89	9
Suppliers		
1976	\$4.59	5
1975	**2.50	5
1974	**1.55	4
1973	**1.05	3
1972	**1.20	2
1971	**1.20	2

* The number of firms reporting is estimated.

**Estimated from graphed information.

Table III-34.-Claims Experience Since 1970,
by Size of Firm.-(ATMI)

<u>Size of Sales</u>	<u>No. of Firms Reporting</u>	<u>No. of Firms With Claims</u>
Under \$5 million	14	0
\$5 to \$10 million	28	3
\$10 to \$50 million	59	11
\$50 to \$100 million	18	7
Over \$100 million	<u>29</u>	<u>21</u>
Totals	148	42

Number of pending claims at end of 1970 and 1975

<u>Size of Sales</u>	<u>No. of Pending Claims--1970</u>	<u>No. of Pending Claims--1975</u>
Under \$5 million	0	0
\$5 to \$10 million	0	1
\$10 to \$50 million	10	5
\$50 to \$100 million	0	1
Over \$100 million	<u>15</u>	<u>76</u>
Totals	25	83

Amount of damages sought in pending claims at end
of 1970 and 1975.

<u>Size of Sales</u>	<u>Damages Sought--1970</u>	<u>Damages Sought--1975</u>
Under \$5 million	-0-	-0-
\$5 to \$10 million	-0-	\$ 435,000
\$10 to \$50 million	\$ 425,000	6,460,000
\$50 to \$100 million	-0-	250,000
Over \$100 million	<u>4,692,500</u>	<u>86,175,648</u>
Totals	\$5,117,500	\$93,320,648

Table III-35.-Product Liability Insurance-Average Annual Cost
Per Thousand Dollars of Sales-(WWEMA)

<u>Year</u>	<u>Average Cost</u>	<u>No. of Firms</u>
Sales under \$1 million		
1975	\$3.42	3
1974	(*)	--
1973	2.63	2
1972	(*)	--
1971	(*)	--
1970	(*)	--
Sales of \$1 to \$5 million		
1975	\$1.18	9
1974	.59	8
1973	.57	8
1972	.48	6
1971	.47	5
1970	.34	5
Sales over \$5 million		
1975	\$1.75	8
1974	.65	8
1973	.51	6
1972	.60	5
1971	.36	4
1970	.33	3

*Inadequate data.

Table III-36.-Claims Experience of Reporting Firms-(WWEMA)

New claims filed

<u>Year</u>	<u>New Claims</u>	<u>Damages Sought</u>	<u>No. of Firms</u>
1975	17	\$3,892,000	11
1974	16	746,000	12
1973	15	765,000	12
1972	8	1,909,000	12
1971	6	3,821,000	12
1970	5	273,000	10

Claims/suits pending at end of year

<u>Year</u>	<u>Number</u>	<u>Damages Sought</u>
1975	26	\$10,088,000
1973	10	6,159,000
1971	2	5,075,000

Table III-37./Product Liability Insurance Premiums-Average Percentage Increases-(RETORT)

<u>Year</u>	<u>Average Percent Increase</u>	<u>No. of Firms</u>
Sales under \$2.5 million		
1975-76	310 percent	17
1974-75	75 percent	19
1973-74	25 percent	17
Sales of \$2.5 to \$10 million		
1975-76	550 percent	8
1974-75	10 percent	10
1973-74	15 percent	8
Sales over \$10 million		
1975-76	60 percent	14
1974-75	60 percent	15
1973-74	5 percent	14

Chapter IV
Product Liability
Prevention Techniques

CHAPTER IV--PRODUCT LIABILITY PREVENTION TECHNIQUES

INTRODUCTION

The Task Force has indicated that one of the three basic causes of the product liability problem is that some manufacturers produce some unsafe products. Product liability loss prevention techniques may help address this cause and reduce claims. See pp. I-24 - 26. This report analyzes remedies that might stimulate further use of these techniques. See pp. VII-175. On the other hand, it has noted that one of the positive impacts of the product liability problem is that more manufacturers appear to be devoting more time and effort to product safety. This chapter shows what the industry contractor, trade association surveys, and other Task Force sources found about the use of product liability prevention programs in our target industries.

It is generally agreed that a direct way to increase product safety is to ensure that unsafe or defective products do not enter the market. Yet, while agreement exists on this point, there is a difference of opinion concerning whether this ideal is attainable even if product liability prevention techniques were employed to the maximum extent practicable by manufacturers. The difference of opinion reflects individual beliefs and judgments as to the causes of accidents and the feasibility of establishing a "zero defect" manufacturing operation at a reasonable cost about the utility of product safety/quality assurance programs. Our industry contractor examined three basic issues:

- The extent to which Product Liability Prevention (PLP) techniques were being used by manufacturers.
- The demonstrated or perceived utility of these programs in terms of accident reduction, reduced claims, or lower insurance costs.
- Incentives or barriers to the establishment of PLP programs.

On the basis of the industry study and other information that has come to the attention of the Task Force, we note that there

appears to be a trend toward greater use of product liability prevention on the part of manufacturers. On the other hand, some manufacturers are uncertain as to whether the programs reduce either insurance costs or product liability claims. It would be helpful if there were more incentives for the use of effective PLP programs. In order to learn more, see pp. VI-49 - 52.

ELEMENTS OF A PRODUCT LIABILITY PREVENTION PROGRAM (PLPP)

A PLPP may take many forms and may be identified under various titles such as product safety, product assurance, and risk management practices. Generally speaking, a comprehensive PLPP will contain elements that describe corporate responsibility from initial research and development through sales and service activities.

The major elements that might be included in a product liability prevention program are as follows:

- An explicit company policy concerning product safety, quality control, and risk prevention.
- Rigorous testing of the program within the context of its use environment.
- A product loss control committee headed by a person representing top management, who has clear authority to coordinate loss control activities. Members of the committee should include representatives from research, engineering and design, production, quality control, marketing, legal, safety, and insurance departments.
- Procedures to assure that government standards and regulations which apply to product safety are understood and considered at all operating levels and are used as minimum requirements in product design.
- Procedures for evaluating the potential for personal injury or property damage during use, or reasonably expected misuse, of proposed new products or changes in existing products.

- Review of existing quality control procedures in relation to developing product liability law. Procedures that are clearly defined, well understood and closely followed.
- Adherence to quality control and inspection procedures that are systematically documented.
- Conspicuous posting of warnings and instructions in a permanent form where such information is necessary.
- Review of all advertising, brochures, labels, warnings, warranties, and instructions by engineering and legal departments to ensure that the information provided is accurate, clear and complete.
- Permanent coding of components in order to identify the source, place and date of manufacture.
- Systematic procedures for investigating product liability incidents and implementing remedial measures where necessary.
- Maintenance of records through the expected life of each product, to include information on research, design, tests, quality control, sales, service and ownerships.

THE IMPLEMENTATION OF PRODUCT LIABILITY PREVENTION TECHNIQUES BY MANUFACTURERS

Introduction

Virtually all PLP programs suggested for industry's adoption stress a number of similar processes or practices. These include quality control, design/redesign review, labeling and packaging improvement, review of advertisements and warranties and, when applicable, greater emphasis on maintenance and servicing procedures for purchased or leased equipment produced by the firm.

The results of the Industry Study's telephone survey with respect to product liability prevention practices are discussed below. Also included is a discussion of the major product

liability prevention techniques that are employed by manufacturers.

Results of Industry Study's Telephone Survey

Table IV-1 displays responses to the product liability telephone survey. The most significant impacts on improved safety were judged by the respondents to be in the areas of product manufacturing and quality control, product design and engineering, and instructions and/or warnings, in that order. The other aspects of product safety programs were generally considered to have little or no impact. Generally, the responses were consistent across the various company size categories. However, for the product safety programs designated as, "Product Design and Engineering" and "Product Manufacturing and Quality Control," the percentage of firms reporting these programs as being "not applicable" was inversely related to the size of the firm.

Percent of Firms Reporting "Not Applicable" for Certain Product Safety Programs, by Size of Sales

Size of firms	Product design and engineering	Product manufacturing and quality control
Less than \$2.5 million	49.6	40.8
\$2.5 million to \$100 million	24.4	15.1
\$100 million and over	12.2	8.7

The frequency of inspections by insurance carriers' loss prevention engineers was also related to the size of firms.

Inspections by Insurance Carriers During
the Last Two Years, by Size of Sales

Size of firms	Number of firms	Percentage of firms
Less than \$2.5 million	39	54.2
\$2.5 million to \$100 million	75	72.1
\$100 million and over	81	73.6

Of the 195 firms with inspections during the past two years, only 82 (42 percent) reported that specific recommendations for reducing claims were received from their insurance carriers.

Thus, 71 percent of the 286 firms surveyed with product liability coverage did not receive advice from their insurers during the 1975-1976 period. Recommendations having the greatest acceptance were augmentation of quality control procedures (41 percent), and improved labeling (21 percent). It would be useful to know more in regard to whether and how manufacturers followed up on these recommendations.

About 37 percent of the respondents to the telephone survey indicated that their firms had a special program directed at reducing product liability claims.

As shown in Table IV-2, larger firms were involved in these programs to a greater extent than smaller firms. Most of the programs have been in effect for some time; approximately 70 percent were initiated prior to 1974.

The largest number of actions undertaken to reduce product liability claims were directed toward improved labeling and augmented quality control procedures. There was no significant difference in this emphasis among the three size categories. However, the largest firms also engaged in product redesign to a substantial degree.

Approximately 18 percent of respondents indicated that special programs to reduce claims for the nine specified product categories had been considered for implementation during the past

year. The number and percentage of firms considering such a program, by size category, are shown in Table IV-3. Generally, about two-thirds of the firms considering such programs plan to augment quality control procedures. About 45 percent have emphasized product design.

Of concern are the manufacturers that either do not have or plan to implement product liability prevention programs in the basic areas of design research and quality control. While some manufacturers in our target groups may not require formal programs, we must remember that the target industries produced relatively high-risk products.

Quality Control

This area of product quality assurance has tended to receive great emphasis by manufacturers well before the products liability issue surfaced. As an example, of the 337 firms contacted by the industry contractor's telephone survey, 60 percent indicated that they had product safety programs dealing with product manufacture and quality control. Of all the aspects of such programs, the manufacturing-testing-inspection phase of these programs was judged to be most effective in terms of limiting liability exposure. We need to know more as to why 40 percent had no program. The figure would appear high enough to be of concern.

The amount of quality control exercised by manufacturers will vary depending on the type of product being manufactured, the potential hazard the product affords, unit cost, various certification or standards compliance procedures and the like. For example, one aircraft component manufacturer contacted in relation to this study indicated that one out of every six of his workforce is engaged in quality control. Pharmaceuticals are illustrative of another product category where exhaustive quality control practices are exercised not only on the finished product but throughout the manufacturing process, including evaluation of raw materials before use. With the passage of the Medical Devices Amendments Act of 1976, it will follow that more stringent quality control procedures will be adopted by manufacturers producing those products.

The abrasive wheel industry represents another sector where strict loss control standards--with particular emphasis on quality control--have been adopted in order to reduce injuries or hold down insurance costs. These programs which were instituted many years ago have been effective, at least until recently, in terms of the aforementioned goals. However, a survey conducted by the Grinding Wheel Institute in 1976 indicated that for 18 firms, which account for about 70 percent of grinding wheel sales, there have been substantial increases in claims and attendant increases in insurance premiums since 1970.

On the opposite end of the spectrum, there are manufacturers who produce a variety of products in large quantities at low unit cost. Nonferrous castings are one such example. For many such products the only inspection to determine if quality standards have been met, may occur as a part of the finishing process when obvious defects are discovered by the employee. However, since the products are often supplied to another manufacturer, who in turn uses the castings as a part of larger assembly, the part may be subjected to further testing and inspection before reaching the ultimate user; however, in some cases one might question whether it is in the interest of product users to permit this reliance.

Labeling and Product Warnings

The results of the telephone survey conducted by the industry contractor in nine product categories indicate that for firms which responded to the question (273 firms), about two-thirds placed some emphasis on the review and improvement of instructions and warnings. For the 125 firms which indicated that special product liability programs had been initiated as a protective measure, about half indicated that specific action had been taken to improve labeling and/or warnings. Those answering the question concerning the demonstrated or perceived effectiveness of this PLP program element ranked activities relating to instructions and warnings somewhat lower than efforts devoted to care in product manufacturing and quality control, but of about equal importance to design and engineering. Consumer groups or engineers may see this "ranking order" from a very different perspective.

The critical appraisal and necessary revision of instructions, warnings, advertisements and warranties can be accomplished much more readily and economically than other labor-demanding aspects of PLP programs such as design, engineering and quality control activities. For this reason implementation of this segment of a total program should be particularly attractive to small business firms which may be unwilling or unable to launch a more extensive PLP program.

Product Redesign and Removal of Products from the Market

One measure of the impact of PLP programs on industry derives from an understanding of what a firm does differently in terms of production or distribution of products in order to lessen product liability claims exposure. The industry contractor attempted to gain insights concerning these impacts by questioning firms which have ongoing product safety or other special programs designed to reduce product liability exposure. The questions were designed to elicit information on the amount of redesign and retrofit that has been instituted by firms, and the number of products that have either been eliminated from production or never introduced to the market. Of the firms surveyed, 125 firms indicated that they have some form of special PLP program. Out of that number, 45 firms indicated that the redesign of one or more products had occurred. A smaller number (21) indicated that some type of retrofit had been accomplished.

In the category of product discontinuance, 13 of the 125 firms indicated that one or more products had been removed from the market. Thirteen other firms which are contemplating the establishment of a PLP program indicated that discontinuance of a product(s) was being considered.

Finally, a question dealing with the introduction of new products produced the finding that 26 firms out of all firms surveyed did delay or cancel the introduction of new products as a result of product liability-related problems.

Recall of Products

Product recall can become necessary when substantial product hazards are identified after the product has reached the user. However, these actions are undertaken rarely, for at least two reasons.

First, manufacturers perceive that there are only a limited number of cases occurring annually where such action is warranted. For example, although all manufacturers of products falling under the jurisdiction of the Consumer Product Safety Commission are required to submit a notification of substantial product hazard, when identified, only 124 notifications were received by CPSC in FY 1975.

Further examination indicated that manufacturers proposed a recall of the products in only half the cases. Redesign of the product and discontinuance of sale were offered as remedies in many instances.

The second reason why manufacturers try to avoid resorting to recalls, particularly in the consumer product sector, is that often the product cannot be traced after sale. The manufacturer must resort to advertisements, news releases, etc., to alert the buyer. Manufacturers may not be notified about existing claims until a statute of limitations is about to run. It may be sound to require attorneys who are aware and have been retained in connection with a claim to provide reasonable notice to a manufacturer about product defects. On the other hand, we note that manufacturers may not take prompt voluntary action toward recall because it is expensive, and public notification of a manufacturer's error will adversely affect future sales.

Most PLP programs stress principles and practices which will minimize the chances of a recall action ever being necessary. These programs do not deal with the recall mechanism per se. This makes a great deal of sense with respect to most consumer products. However, in the case of capital goods and equipment, a better opportunity exists to establish procedures which permit products to be traced even after long periods of time.

IMPLEMENTATION OF PRODUCT LIABILITY PREVENTION PROGRAMS BY INSURERS

Many insurance firms offer loss control and product liability prevention services, usually in connection with surveying and rating the risk of an applicant for liability insurance. Furthermore, firms which elected to assume a larger proportion of both risk and claims handling found it in their self-interest to increase the effectiveness of PLP programs. However, the provision of surveys, inspections, and advice by insurers is not universal and appears to be governed by many factors, including size of firms.

In order to obtain insights concerning the degree to which insurers are providing these services, the 337 firms surveyed by the industry contractor were asked a series of questions concerning whether insurance loss prevention services had been received from insurers within the last two years and what effect these services were perceived to have on the firms' operations.

The following statistics relate to firms which carry some form of product liability insurance. About 68 percent of all firms surveyed which had insurance had received such services from their carriers within the last two years. Thirty-nine of the 72 firms with sales of less than \$2.5 million a year indicated that they received such services (54 percent). The comparable rates for medium and large firms were 72 percent and 74 percent, respectively. About 45 percent of firms receiving some form of services received suggested changes in manufacturing practices or for upgrading PLP programs. These generally dealt with the areas of quality control and labeling. It would be helpful to know more in regard to whether manufacturers do or do not implement changes suggested by insurers.

The insurance contractor also investigated practices of insurers in loss prevention and control. Their findings tend to corroborate the Industry Study findings. It was determined that 66 percent of the sample of insurers have developed written guidelines defining the type of product that normally requires a loss control survey before an underwriting decision is made.

Data from underwriting files also indicate that large companies are surveyed more often than small firms, although interviews indicate that this trend may be changing to include more smaller manufacturers.

As discussed previously in this chapter, insurers appear to have become more actively involved in recent years in evaluating the manufacturing practices of their clients from the standpoint of product safety and potential liability. However, some manufacturers who have received these services are uncertain as to what benefits result. The effect on premiums is not well defined, nor are the benefits associated with implementation of improved manufacturing procedures necessarily reflected by fewer claims or reduced settlements. See Industry Report at IV-102.

It can be expected that insurers will continue to assess more critically the product safety practices of manufacturers and the product liability prevention programs being instituted by their clients. However, more extensive involvement by insurers in this role has increased the cost of providing insurance coverage and will continue to do so. For large firms, such services may represent only a small portion of the total premium cost. However, the cost of inspections, periodic surveys, and other liability prevention insurance services which might be provided by insurers may add significantly to the cost of providing insurance coverage to small firms. For this reason, it may be expected that small firms will continue to receive less service in these areas.

THE POTENTIAL USE OF PRODUCT LIABILITY PREVENTION PROGRAMS IN THE FUTURE

If product liability prevention programs (PLPP's) are to play a major role in the solution to the product liability problem, then the concept must be more clearly defined and its effectiveness must be more precisely measured and demonstrated.

For example, the general elements of product liability prevention programs tend to be the same regardless of the product being produced. However, in practice they vary considerably as applied in particular firms. When PLP elements are translated

into an industry or trade standard, they represent an accepted or imposed minimum level of safety performance.

The impact of a Federal role in the development and imposition of safety standards has sometimes been to make them more stringent. The more stringent standards have specified methods of production, testing, and certification that support the purpose of protecting the population, and they may embody the higher levels of the state-of-the-art. The standard is generally accompanied by a complementary system of controls on the use of the product, by licensing, certification, or other regulation.

Economic incentives for adoption of PLPP's may be lacking at the present time. Discussions with manufacturers in personal interviews and in the telephone survey during the Industry Study indicated that many are developing and operating product liability loss prevention and control programs. A significant number further indicated that insurers have provided inspections and audits of loss prevention practices and programs. However, generally, it is the larger firms which either have developed these programs, or have received services from their carriers. Moreover, many respondents further asserted that while some of the suggestions were helpful, such as augmentation of quality assurance activities, there was no apparent connection between the establishment and effective operation of a loss prevention control program and insurance rate setting. Chapter VII, p. 177, discusses remedial measures in regard to this problem.

Manufacturers want to know how product liability loss control programs benefit them with respect to the amount of premiums paid. However, the way in which this occurs, and the relative effect of PLP practices compared to other factors such as claims experience, or estimates of future losses, is not being communicated to many manufacturers. Because offsetting cost savings may not be identified or perceived to exist, further expenditures for new or improved PLPP's may appear less attractive to management. Improvement in the communication of the direct monetary savings achievable from adequate PLPP's, from the insurer to the manufacturer, might serve to foster wider adoption of such programs in the future.

GOVERNMENT AND PRODUCT LIABILITY PREVENTION

The industry contractor reviewed the status of five major government programs relating to safety and standardization. From this review and analysis, it is apparent that government safety enforcement programs encourage companies to install product liability prevention programs. However, the incentives associated with PLPP establishment and operation vary as a function of the enforcement program in question.

For example, in the case of OSHA, the government role is minimal in terms of fostering the adoption of PLPP's. The government inspects only to assure that firms are in compliance with promulgated standards. In the case of FAA and FDA, there is much more of a Federal presence, which virtually assures that companies subject to Federal standards governing aircraft certification or pharmaceutical manufacture have formal PLPP's. The quality of these problems may still vary.

Both FAA and FDA go beyond merely inspecting to determine whether standards are or are not being met. Because it insists that all drug manufacturers meet FDA "good manufacturing practices," even the smallest manufacturer must have a PLPP in place. Similarly, manufacturers of aircraft and component parts of aircraft, because of the stringent airworthiness requirements (where parts must be built to standard, are subject to maintenance standards, and can be required to be recalled for modification at any time), must also have in effect total PLPP's.

PRODUCT STANDARDS

Many of the nation's present standards programs consist of the development and use of voluntary industrial standards (important exceptions are OSHA, FAA, and FDA standards). The problems in reaching an agreement on a proposed voluntary standard are based, at least in part, on economic tradeoffs that each potential standards user must make in order to develop or accept the standard, based on his particular environment and posture. The measures that are applied can often be quite different with respect to users engaged in the same activities. Because of this, agreement is often difficult to obtain and

compromise is required. When a high degree of compromise is required, it is less likely that the standard will be accepted outside of the adopting industry.

Two of the organizations in the United States are concerned exclusively with the preparation, approval, and publication of voluntary consensus standards. These are the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI). The Standards Development Services Section (SDSS), previously Office of Engineering Standards Services (OESS), of the National Bureau of Standards, U.S. Department of Commerce, has a similar function, as do parts of other organizations. A typical example is the Codes and Standards Division of the American Society for Mechanical Engineers (ASME).

ASTM was incorporated for the promotion of knowledge of the materials of engineering, and the standardization of specifications and the methods of testing. In 1971 a modified program was adopted to include the development of standards on characteristics and performance of materials, products, systems, and services, and the promotion of related knowledge. ASTM is now concerned entirely with the preparation of standards and with the well-being of the voluntary standards system and is the source of more than half the existing American National Standards approved by ANSI.

ANSI is also concerned with effectiveness of standards. It seeks to accomplish this through procedures for:

- Certification of standards-making processes of other organizations.
- Initiation of new standards-making projects.
- Examination of standards prepared by others to determine if they meet the requirements for a consensus of interested parties to an extent suitable for approval as American National Standards.

ANSI organizes, supervises, and controls the membership of many committees that prepare standards for approval under the ANSI procedures. Usually ANSI does this at the request of

several of the affected parties or when it concludes no other organization is suitable to carry out the work. Almost 25 percent of the American National Standards currently come from these committees.

Safety standards are a small minority of all published standards. For example, of the 6,000 standards approved to date by the American National Standards Institute, only 440 of them apply to occupational safety and health, safety of household and industrial products, highway and traffic safety, and recreational safety.

The SDSS manages the Voluntary Product Standards program established by 15 CFR, Section 10.0 (1977). It develops standards under a prescribed consensus procedure. An important criterion for undertaking the development of a standard by SDSS is that the standard cannot be processed according to the needs or the desires of the proponent group by a private national standards body. However, SDSS finds it difficult to enforce this rule in all cases. Some groups prefer to use the SDSS to develop standards, believing the SDSS adds a "Federal presence" that makes the resulting standards more credible. Sometimes legislative pressures encourage this. While the SDSS procedure is an important stopgap in the voluntary system, it has processed relatively few standards--about three percent of those extant.

The Codes and Standards Division of ASME prepares the Boiler and Pressure Vessel Code which is now referenced in the laws of most states, most large U.S. cities, and all the Canadian Provinces. The ASME Codes and Standards Division is also responsible for 40 performance test codes for turbines, combustion engines, and other large mechanical equipment.

Trade associations also produce voluntary standards that usually are a consensus of only producers or suppliers. The standards may cover safety, interchangeability, testing methods, and other product characteristics which the association members believe are technically desirable to standardize. They describe what the industry is prepared to supply, but often they require a sophisticated purchaser to understand them. In some cases users of the product are able to participate, at least to some extent, in the development of the standards. In other cases the

associations rely on their contacts with user organizations or individual customers for user inputs. A number of trade association standards have gained national acceptance.

Some of the trade associations that have produced large numbers of standards include the Aerospace Industries Association, American Petroleum Institute, Association of American Railroads, Electronic Industries Association, Manufacturing Chemists Association, and the National Electrical Manufacturers Association. Some trade associations willingly conduct their standards-writing efforts within professional standards-writing bodies such as ASTM.

Professional societies in the scientific and engineering fields usually have been organized to advance their professions or the branch of science or engineering with which they are concerned. Many of the standards they develop are of the technical, nonproduct, noncommercial type (nomenclature, graphical symbols, test methods). Many others deal with processes and materials and components of interest to the profession. Usually only members of the society serve on the committees that develop these standards, but the society membership often represents producers, users, academia, government, and other interests. Thus, some societies achieve an excellent balance of interests on their standards-development committees.

There are a number of technical organizations that have been formed for particular industries. A good example is the Technical Association of the Pulp and Paper Industry. Their membership includes all kinds of scientists and engineers who are working in the industry. Many of these organizations are allied closely to trade associations but operate much like professional societies.

The professional and technical organizations contributing the most standards are the American Concrete Institute, American Oil Chemists Society, American Society of Agricultural Engineers, American Society of Mechanical Engineers, Institute of Electrical and Electronics Engineers, Society of Automotive Engineers, and the Technical Association of the Pulp and Paper Industry.

There are also a number of standards-making organizations that cannot be classified in any of the previous groups. These include:

- (1) The National Fire Protection Association (NFPA) which publishes National Fire Codes and the National Electrical Code which serve as a basis for state and local fire control and building code ordinances.
- (2) Underwriters Laboratories, Inc. (UL) which develops safety standards, including testing procedures, for use in evaluating and listing materials, products, and systems for adequacy to prevent fire, crime, and casualty. Many UL standards have been approved as American National Standards.
- (3) Factory Mutual Engineering Corporation (FMEC) which develops safety standards and testing procedures for use in evaluating equipment in a manner similar to UL in other fields. The standards have wide recognition by insurance and safety officials but are not submitted for approval as American National Standards.
- (4) The American Insurance Association; Building Officials and Code Administrators, International; International Conference of Building Officials; and Southern Building Code Congress prepare model building codes covering a range of products and practices. Many state and local governments apply these model codes within their jurisdictions. The codes incorporate or reference many American National Standards and standards of other organizations.

The preceding discussion indicates that voluntary standards have been developed for a large number of industrial products and, to a lesser extent, for many of the products produced for use by the consumer.

The report's discussion about the use of these standards in product liability litigation is set forth at p. VII-33.

TABLE IV-1.--Reported Impact of Selected Product Safety Programs

Product safety program	Not applicable		Little or no impact		Some impact		Significant impact		No response	
	No.	Percent	No.	Percent	No.	Percent	No.	Percent	No.	Percent
Product design and engineering	94	27.9	32	9.5	62	22.4	78	23.1	71	21.1
Product manufacturing and quality control	70	20.8	27	8.0	80	23.7	96	28.5	64	19.0
Container design and engineering	146	43.3	64	20.5	41	12.2	10	3.0	71	21.1
Storage and distribution	138	40.9	83	24.6	34	10.1	13	3.9	69	20.5
Instructions and/or warnings	88	26.1	36	10.7	86	25.5	63	18.7	64	19.0
Advertising and public education	117	34.7	78	23.1	53	15.7	18	5.3	71	21.1

Source: Product Liability Industry Telephone Survey, Gordon Associates, Inc., December 1976.

TABLE IV-2.--Special Product Liability Prevention Programs,
by Size of Sales Category

Response	Less than \$2.5 million No. Percent	\$2.5 million to \$100 million No. Percent	\$100 million and over No. Percent	All firms No. Percent
Firms with special programs	20 19.4	46 38.7	59 51.3	125 37.1
Special program started:				
1974 or later	6	13	17	36
Before 1974	15	30	43	88
Actions undertaken:				
Discontinue products	1 1.0	6 5.0	6 5.2	13 3.9
Product re- design	5 4.9	13 10.9	27 23.5	45 13.4
Product ret- rofit	0 .0	5 4.2	16 13.9	21 6.2
Improved labeling	10 9.7	21 17.6	32 27.8	63 18.7
Modified manu- facturing	5 4.9	14 11.8	17 14.8	36 10.7
Augmented quality con- trol	12 11.7	34 28.6	42 36.5	88 26.1

Note: Detail may not add up to totals because of variations in reporting.

Source: Product Liability Industry Telephone Survey, Gordon Associates, Inc.,
December 1976.

TABLE IV-3.--Special New Programs Considered in the Last Year
to Reduce Claims, by Size of Sales Category

Response	Less than \$2.5 million No. Percent	\$2.5 million to \$100 million No. Percent	\$100 million and over No. Percent	All firms No. Percent
Firms which con- sidered special programs	8 7.8	28 23.5	26 22.6	62 18.4
Actions considered:				
Discontinue products	2 1.9	4 3.4	7 6.1	13 3.9
Product re- design	34 3.9	11 9.2	12 10.4	27 8.0
Modified manu- facturing procedure	2 1.9	8 6.7	6 5.2	16 4.7
Augmented quality con- trol	34 3.9	21 17.6	15 13.0	40 11.9
Other	3 2.9	8 6.7	11 9.6	22 6.5
Firms with current plans to initiate special programs	5 4.9	16 13.4	14 12.2	35 10.4

Source: Product Liability Industry Telephone Survey, Gordon Associates, Inc.,
December 1976.

Chapter V

Product Liability Insurance

PRODUCT LIABILITY INSURANCE

INTRODUCTION

Scope and Purpose of Analysis

This Chapter analyzes the functions of the product liability insurance system in order to identify practices that have contributed to product liability insurance problems and to suggest ways in which these practices might be improved.

Several information sources were used in the development of this analysis, many of which have become available subsequent to the publication of the Briefing Report. The primary sources relied on are the contractors' reports prepared for the Task Force, the preliminary results of the Closed Claim Survey undertaken by the Insurance Services Office (ISO), product liability underwriting experience through 1974 compiled by ISO, financial data on the property-casualty insurance industry assembled from both company reports and the trade press, and testimony presented to the Subcommittee on Capital, Investment and Business Opportunities of the U.S. House of Representatives' Committee on Small Business. The Insurance Study prepared by McKinsey & Co. for the Task Force was useful for its discussion of underwriting practices and the data presented in the Industry Study prepared by Gordon Associates for the Task Force contributed to the discussion of premium increases and their variations among firms.

The approach used in this chapter is based on the objectives of the system from a public policy standpoint. These objectives relate to the obligations of the system to the parties served:

- insurance companies (the insurer)
- product manufacturers and suppliers (the insured)
- product users and accident victims, whether or not product users (the claimants)

The practices which are subsequently discussed and the remedies suggested should be considered in relation to each of the objectives. This point is emphasized because of the

interdependence of the objectives. A brief discussion of the objectives and the issues within them follows:

The Maintenance of Sufficient Funding to Assure the Payment of Legitimate Claims

The basic issue under this objective is whether insurance companies maintain sufficient funding to assure potential claimants that they will receive payment for legitimate claims. This objective is important to potential claimants, but if it is over-emphasized to the extent that companies over-reserve, both the cost and availability of product liability insurance would be adversely affected.

The Availability of Insurance to all Reasonably Insurable Product Manufacturers and Suppliers at a Cost Reasonably Commensurate With Product Risk

Implicit in this objective is the concept that product liability coverage should be made available to those who need to purchase it and are reasonably insurable. Insofar as insurance companies ultimately have to pay claims against their insureds, however, the cost of such coverage must be priced in such a manner that liabilities, including defense and other loss adjustment expense costs, are covered; i.e., the premium should reflect the product risk. The basic issues here are whether premiums actually reflect costs related to the product risk and whether premiums charged different policyholders are equitable. A primary policy conclusion implicit in this discussion is that if premiums are soundly assessed and commensurate with risk and still are too costly for the insured, the solution probably lies outside the insurance system.¹ If the premiums are assessed unreasonably, however, the system should be revised. If the data available are insufficient to permit reaching a conclusion either way, then means must be found for collecting the data necessary to make valid judgments about proper rate levels.

The Opportunity for Insurance Companies to Make a Reasonable Profit

While the other objectives relate to the needs of claimants and the insured, this one recognizes that insurance companies are

entitled to conduct business at an overall profit. This does not mean that insurers are entitled, or can reasonably expect, to make a profit on every policy.

Organization of the Chapter

Current concerns relate principally to the problems faced by product manufacturers and suppliers in obtaining insurance at a cost they can afford. The remainder of this chapter focuses primarily on that need and the practices which adversely affect it. Solutions must, however, be considered in relation not only to this need but also for their effects on the other legitimate objectives of the system.

The subjects addressed in this chapter and the policy issues within each of them are:

The Product Liability Insurance Policy.--This section describes the types of policies that are usually written, and trends in coverage limitations. This section appears in this chapter primarily for explanatory purposes. A further discussion of the trends and policy implications of coverage limitations is to be found in Chapter VI.

The Underwriting and Pricing Process.--This section describes the manner in which product liability premiums are determined by insurance underwriters. It is frequently alleged by product manufacturers and suppliers that premiums are rising dramatically and questions are raised concerning the basis for determining the premium amount and the relationship of that amount to the risk covered. This section addresses these issues and discusses means by which the system might be improved.

The Rise in Product Liability Premiums.--This section analyzes the data available on premiums that have been charged in selected industries and compares premiums paid by firms in different industries and by company size groups. The issues addressed include whether small businesses pay unreasonably more for product liability insurance than large ones. (See also pp. VI-11 regarding affordability of insurance.)

Underwriting and Claims Experience.--This section presents data provided by the Insurance Services Office (ISO) on its estimates regarding underwriting experience and on the preliminary results of its Closed Claim Survey.

The Financial Situation in the Insurance Industry.--This section presents aggregate financial data for the property-casualty industry and for the miscellaneous liability insurance line which includes product liability insurance. The purpose of this section is to discuss overall capacity² and underwriting experience and their implications for insurance costs and availability.

Reinsurance and Surplus Lines Insurance.--This section seeks to assess the role of reinsurance and surplus lines insurance in the existing product liability insurance market, along with their potential impacts on availability and costs.

Limitations of the Analysis

The principal limitations on the analysis developed in this chapter derive from lack of data and information specific to product liability. Comprehensive data are not available on product liability claims costs, payments, premiums, reserving practices, amounts of product liability coverage provided by reinsurers, and other indicators of product liability procedures used by the industry.

Although data are limited, it was possible to use the available information for some analysis. However, it should be noted that these evaluations of the financial situation in the insurance industry, current reserving practices, private reinsurance, impacts of underwriting practices, and other issues cannot be regarded as thorough. In the absence of precise information as to premiums attributable to product liability and the amounts of the unearned premium and loss reserves specifically allocable to product liability, it is not possible to determine the investment income properly allocable to product liability coverages. It is also not possible to determine precisely the relationship of premium costs to actual claims costs and, in particular, to actual payments to claimants.

THE PRODUCT LIABILITY INSURANCE POLICY

Introduction

This section gives a general description of product liability insurance policies, and discusses some of the issues that have arisen concerning product liability coverage.

The typical product liability insurance policy consists of an agreement between an insurance company and a product manufacturer or supplier (the insured) whereby, for a price (the premium), the insurance company agrees that it will defend all claims and pay, up to a maximum amount, all legal obligations of the insured attributable to products covered by the policy and from which damages were sustained during the policy period.³

Product insurance usually provides coverage on what is called "occurrence" basis, whereby coverage is provided for all product-related damages⁴ that occur during the policy period. Neither the time of manufacture of the product nor the time at which the claim is made determines whether the policy provides coverage.

Types of Policies

Product liability coverage traditionally has been provided within one of the two major types of primary policies, namely, Comprehensive General Liability and Commercial Multi-Peril Package policies. Comprehensive General Liability Policies (CGL) can provide coverage for a number of different types of liabilities including products liability and completed operations coverage which covers liability for installation and servicing work but only after such work has been completed or abandoned. Product liability, including coverage issued under CGL policies, is predominantly written on a monoline basis. When it is said that such coverage is written on a monoline basis, this simply means that the premium is allocable and allocated to the specific hazard being insured, i.e., the products-completed operations hazard. Package policies, which provide property coverage in addition to the third party coverages offered by CGL policies, are frequently referred to as "multi-line policies."

Limits of Coverage

Comprehensive General Liability coverage may be limited in two ways: 1) the limit for each occurrence, and 2) the aggregate annual limit for all occurrences within the policy period. The limits are usually exclusive of legal defense costs. If either limit is reached, further losses are uninsured.

Most product liability insureds purchase more than the basic annual limits which are \$25,000 per occurrence for bodily injury and \$5,000 per occurrence for property damage with aggregate annual limits of \$50,000 for bodily injuries and \$25,000 for property damage. Limits between \$25,000 and \$1 million are usually covered in the primary policy. Limits in excess of the basic amounts can be provided by "excess" or "umbrella" policies which are written in order to spread the liability among different insurers. (See pp. VI-8 for a discussion of policy limitations as they affect availability of product coverage.)

Deductibles

A deductible is that amount which the insured agrees to pay and which must be exceeded before the insurance company pays. Deductibles are commonly used in personal lines of property insurance (such as automobile collision, homeowners, etc.) where they serve the purpose of reducing premiums through avoidance of the cost of adjusting large numbers of small losses. Deductibles have not traditionally been used in commercial liability insurance. Both the Insurance and Industry Studies attempted to develop data on this subject. The Insurance Study showed that less than 3% of the 3,000 policies reviewed included deductibles. Those companies with deductibles were distributed as shown in Table V-1.

The Industry Study showed that in recent years there has been an increase in the use of deductibles among the companies surveyed. (See Table V-2).

Occurrence versus Claims-Made Policies

As has been indicated, standard product liability coverage applies to claims that are made against the insured due to bodily

injury or property damage which occur during the policy period. Under a "claims-made"⁵ policy, the insurer is only liable for claims made during the policy period.

It has been suggested that the product liability insurance problem might be alleviated if insurers changed from an occurrence basis to a claims-made basis. An analogy is made with medical malpractice, where claims-made policies were introduced to reduce speculation in the ratemaking process and the extent of coverage.

However, one must be cautious about analogizing between medical malpractice and product liability. The "occurrence" covered by the malpractice insurer is the negligent medical or surgical procedure performed by the physician during the policy period. Thus, if a surgical sponge were to remain undetected in a patient for ten years before overt symptoms erupted, the insurer having the coverage when the surgery was performed would have the responsibility for payment of the loss under an occurrence policy. Where such long-delayed results are common, an insurance actuary must try to predict the cost of losses which will be paid many years in the future. Changes in the legal system and inflation in the intervening years, make such predictions extremely difficult. Under a claims-made policy, these uncertainties would be eliminated--the insurer would not have to worry about claims made in the future, but only those brought during the current policy year.

The situation is not quite the same under product liability insurance. The "occurrence" is not the time of manufacture, but the time when the product injures someone.

According to preliminary data from the Insurance Services Office, 95.9% of bodily injury and 96.0% of property damage claims have been reported within 24 months of the occurrence. See ISO Preliminary Closed Claim survey, Detailed Analysis, -. 47. Product liability insurers appear less concerned about these "future" claims than they are about current claims based on products that were manufactured in the distant past. "Claims-made" policies cover lawsuits of this kind; thus, they do not alleviate insurers' concerns about old products.

It should be noted, however, that for certain products claims-made policies may assist insurance actuaries in predicting and rewarding risks. Examples include pharmaceutical products and organic chemicals. (See Insurance Study at 4-46;4-47.) With respect to these products, situations may arise where there is a substantial passage of time between the time of ingestion or other use of the product and the time when the appearance of overt symptoms results in a claim. Insurance actuaries may have difficulty (analogous to the medical malpractice situation) predicting how many claims involving delayed manifestations of symptoms will arise in the future. Moreover, it may be necessary for insurers to set aside substantial amounts of funds in incurred-but-not-reported (IBNR)⁶ reserves for products of this type.

Claims-made policies offer an advantage aside from better risk prediction. In that regard, there may be difficulty in determining the date of the "occurrence" of the product injury so as to ascertain which product liability coverage is applicable. See Volume VII, Legal Study at 93. On the other hand, it is always clear when a claim is made.

Claims-made coverage may help resolve these problems, but it could create a problem for victims in situations where a company had gone out of business since the time the initial injury-causing event occurred: there would be no coverage for such an incident at the time the claim was made. If a corporation were to go out of business or to merge, there might be a need to require that occurrence basis insurance be available for claims made after the company has gone out of business. This is one form of "tail coverage."

There is one facet of claims-made malpractice coverage that may cause problems if it were brought over to the area of product liability. According to Howard B. Clark, Special Assistant to the Administrator of the Federal Insurance Administration, most claims-made medical malpractice insurers require that the insured have claims-made coverage; written by the same company, both at the time when the professional service was performed and when the claim is made. If the analogy were made in the area of product liability, a manufacturer might be required to have maintained claims-made coverage at the time his product was manufactured and

at the time of the injury and at the time of the claim. If these coverage limitations were included in a claims-made product liability policy, they might result in some insureds being without coverage for some products they had manufactured in the past--this consequence would not appear to be in the interest of either consumers or manufacturers. Compare *Rotwein v. General Accident Group*, 103 N.J. Super. 370, 247 A. 2d 370 (1968) (architect policy--upholding provision requiring insured to have maintained claims-made coverage at the time of the negligent act) with *Jones v. Continental Ins. Co.*, 123 N.J. Super. 91 303 A. 2d 91 (1973) (architect policy holding invalid a provision requiring insured to have maintained claims-made coverage by the same insurer at the time of the negligent act.) It has been suggested to the Task Force Staff that this problem can be easily remedied by eliminating the "retroactive date" concept. (See letter to the Project Director from R. Clements, 10/20/77.)

In sum, claims-made policies would reduce the degree of speculation in the ratemaking process only with regard to products that involve the degree of long time spans between the time of an initial injury and the time that the injury manifests itself. If claims-made policies are utilized in product liability, care must be exercised to avoid coverage gaps that could adversely affect consumers and manufacturers.

THE UNDERWRITING AND PRICING PROCESS

Introduction

The underwriting process encompasses both the decision by the insurer whether to accept the risk at all,⁷ and, the determination of the appropriate premium for the risk; i.e., the price that will be charged for the coverage. This section focuses predominantly on the means used to develop premium rates⁸ and the increases which have been made recently in the rates developed by the Insurance Services Office (ISO), the industry's primary statistical compilation and rate development organization.

The price (premium) which will be charged for product liability coverage is determined in the underwriting process. Ideally, the

price an insured pays should reflect the actual product risk. Such a price could be developed by determining the number of products in the field, applying a rate developed for use throughout the industry which would reflect the expected incidence and cost of injury associated with the product, appropriately modified by the prior claims experience of the specific firm. With the addition of a profit allowance, administrative costs and fees, the premium for a given firm would be established.

In fact, the underwriting process is, at best, an approximation of the foregoing. For most products coverage, neither the insurance companies nor the Insurance Services Office (ISO) have more than subjective estimates of the probable risk upon which to predicate premiums. The result is that most premiums, in the final analysis, amount to "informed best guesses" of the individual underwriter.

The Working Task Force representative from the Federal Insurance Administration has observed that such "informed best guesses" are affected by such things as the competitive environment, the insurer's overall capacity or limitations on the capacity that the management is willing to devote to the line, potential defense costs that may be insured and myriad other factors.

There are different methods by which products coverage is provided and premiums are determined. Table V-3 identifies the types of methods used and the percent of the product liability premium that each represents. An explanation of the various methods follows:⁹

Manual Rated (monoline¹⁰).--This is the only rating method which uses published rates which have been statistically derived from reported claims experience. Manual rates, that is, those rates which are published in ISO's Product Liability Manual, are given for 65% to 75% of the over 400 product classifications used by ISO. Policies for which these rates apply account, however, for only between 10% to 15% of the total product liability premium according to ISO estimates. Manual rates are available for low risk products and usually only apply to small firms since large firms are more likely to use package policies or be

eligible for the special rating plans (loss rating etc.). Premiums for manual rated, monoline policies are determined by insurers by multiplying the published rate by the number of "exposure units." The actual exposure units would be the number of products covered by the policy that are and will be in use throughout the policy period. Usually, however, a surrogate for exposure units such as gross sales or receipts is used. Most manual rates are stated as an amount per one thousand dollars of sales or receipts.

Small (a) Rated (monoline).--This method is used in establishing premiums for firms with monoline policies which produce products for which there is either a high degree of variability in claims experience or too little data on claims experience reported for ISO to be able to calculate statistically valid rates. No statistically reliable rates are available for these product classes. Thus, in the Product Liability Manual, the symbol(a) is given rather than a specific rate for those product classes which are (a) rated. Approximately 25% to 35% of the total number of classes are (a) rated. ISO estimates that the (a) rated monoline policies represent 30% to 35% of the total product liability premium. ISO does provide suggested rates for the (a) rated classes. These suggested rates are intended as a rough indication of the average rate appropriate for the class as a whole and they are given only as guidelines. They are subjective estimates and not statistically reliable. Insurers may use them, adjust them or ignore them. In effect, therefore, premiums for (a) rated monoline policies are based on the subjective determination of individual underwriters and, as such, amount to "informed best guesses."

Package Policies.--Package policies are multiline policies. They account for approximately 30% of the total product liability premium. The package policy premium is determined by using the monoline rates (the manual and (a) rates) modified by a package discount. An experience factor may also be used in calculating the premium.

Composite Rated¹¹.--This type rating is used for large firms producing different types of products. A composite rate is calculated initially on the basis of a survey of the separate exposures using the appropriate manual rate when such applies and

presumably selecting a factor for (a) rated products. The sum of the rates and exposures is then divided by a selected exposure base. ISO requested that composite rating for product liability (except for Loss Rating) not be used after January 1, 1977.¹²

Loss Rated.--This rating method which is a form of Composite-rating, uses past losses to determine the premium. Only companies which have \$200,000 or more of losses at \$10,000/\$10,000/\$10,000 limits over the prior three years are eligible for loss rating.

Large (a) Rated.--According to ISO, the rates for very large companies are determined "on the basis of the specific characteristics of that risk rather than on the class or manual rate...."

It is relevant to note that when insurers recently responded to a congressional inquiry regarding their product liability ratemaking procedures, they reported that they rely primarily on ISO rates combined with the "judgment" of individual underwriters.¹³ Each company also responded that sales and receipts were the measure of exposure used. Only one company referred to a consideration of numbers of products. Each company also reported that records of exposure were kept only in terms of dollar figures or that such records were submitted to ISO pursuant to the Statistical Plan, but company records were not kept.¹⁴

From the foregoing discussion it can be noted that for product liability underwriting, published rates are available only for manual rated risks which amount to only about 10% of the total product liability premium. In respect to the vast majority of product liability premiums, statistically reliable rates are not available and the line is essentially unregulated, in fact, if not in theory. Thus, for product liability insurance, except for the approximately 10% manual rated business, it really does not matter whether the State is a "prior-approval" State in which no insurer may use any rate unless it has been filed with and approved by the regulator prior to its use, or whether it is an "open-competition" or "file and use" State in which the insurer may use a rate without prior approval subject to a subsequent disapproval by the regulator if the latter establishes that the

rate is inadequate, excessive, unfairly discriminatory, or otherwise unlawful under the rate regulatory law.

ISO Rate Increases

The rate increases, established by ISO in August 1976 and December 1976, provide an indication of the magnitude of product liability premium increases which have occurred and are likely to occur in the near future. For a discussion of the relationship between rates and premium increases, see pp. V-28. ISO determines the need for an overall increase in rates based on trend projections of actual and estimated losses from prior policy years. Having determined the amount of an overall average increase in rates, ISO assigns weights to individual product classes. These weights, based on the limited experience data reported to ISO (see table V-3) and subjective judgments, are used to factor the individual rates so that in aggregate they will yield the overall average rate increase previously deemed necessary¹⁶.

Table V-4 is a representative listing of percent increases in product liability insurance rates established in December 1976 over those in effect in August 1975 rates for a compilation of product liability rates provided by ISO. The compilation includes only rate increases in excess of 100%.

Table V-4 shows increases in basic limit rates to the extent that a firm chooses to purchase higher limits of liability, higher premium rates will apply. Table V-5 shows the increased limits factors currently in use for monoline rated products.

Table V-6 shows rates per \$1,000 of sales for selected products if insurance limits of \$250,000 bodily injury and \$50,000 property damage per occurrence were purchased.

The 1976 basic monoline rates and increased limits factors developed by ISO and used in these comparisons are the most current product liability rates in use and will be impacting insurance policy renewals nationwide for the next 12 to 18 months. It appears safe to conclude that, for most of the monoline rated products classes, insurance costs have increased

or will increase and that some of these increases will be substantial. As is noted on p. V-28, continued, reliance on the current methodology for determining the need for rate increases could result in further rate increases in the near future.

ISO Statistical Compilation Activities

Although most premiums for product liability coverage are determined quite subjectively by individual insurance companies, increasing attention is being given to the development of more statistically reliable rates for product liability based on pooled experience. The primary advantage of an industry-wide statistical agency for the gathering and compilation of statistical data lies in its potential ability to establish a far broader data base than could be garnered by any individual company.

The Insurance Services Office (ISO) is currently attempting to expand its data base and improve its ratemaking. This section discusses the potential utility and current limitations of ISO data collection.

ISO utilizes a Statistical Plan to collect premium and experience data from its members and subscribers. As of June 1, 1977, the Statistical Plan for general liability used by ISO and its subscribing insurance carriers was changed. The experience of all composite rated, experience rated and large (a) rated policies is to be broken out in monoline product detail by product code except for risks with general liability aggregate losses of over \$100,000 annually. The loss experience attributable to the product liability portion of commercial multiperil policies is also being broken out in monoline detail.

The data using the new Statistical Plan will not be sent to ISO by the insurers until after the 1977 policy year is over, that is, sometime in 1978. Unless an unusually vigorous effort is undertaken, the data will not become available until 1979.

Exposure, claims, and loss data should be obtained in usable form sufficient to permit determination not only of indicated general rate levels of the line but of classes within the line.

The current ISO classification plan contains over 400 separate classifications.

To be statistically sound, rates for each product class should be based on the claims experience per unit of exposure that has occurred in the past. That is, assessments of the probability of claims in the future for a given class should be based on knowledge of claims in the past. Other factors will continue to be used in setting individual premiums.

The procedure currently used by ISO, and described in this Chapter, is based on aggregated incurred losses for each policy year. In essence, the procedure amounts to determining whether premiums have been adequate to pay for incurred losses and making adjustments in rates accordingly.

The ISO procedures to date result in rates for most products liability that are not statistically sound. The rates are not necessarily reflective of actual claims experience within each class.

Indications are that claims are not generated with sufficient frequency to allow rates to be established for each existing class without resorting to weighting of individual class experience with the experience from groups of classes. It should be noted that for many products for which insurance premiums are very high, claims experience is not generated with great frequency. That is, there are not many accidents that lead to product liability claims for the product; yet, when there is a claim, it can be a large one. Time is also needed to generate data for new products.

When spread over the thousands of products manufactured, and given the numerous product classes used by ISO, the data base will not become statistically sound in a short time, if ever, for certain existing product classes.

That data for ratemaking purposes would be generated slowly through a process using reports of companies that subscribe to ISO is shown clearly in the preliminary data from the Closed Claim Survey. After having received data from approximately 7,800 closed claims, the Preliminary Report indicates that only 6

claims were closed with nonzero payment in connection with metal cutting machine tools (product code 205) metal forming tools (product code 206), accessories, attachments and auxiliary equipment for machine tools (product code 207), and tools for machine tools (product code 208).

For product code 205, there was one bodily injury claim closed with payment of \$1,500; for product code 206, there was one bodily injury claim closed with payment of \$1,250. Product code 207 generated two bodily injury claims with payments totaling \$235,000 and two property damage claims with payments totaling \$9,345. Product code 208 generated no claims with payment.

Although these are preliminary results from the ISO Closed Claim Survey, they would indicate that even a 12-month compilation might yield only about 24 claims with payment for these product categories. The sparsity of the data indicates that statistically reliable data for some product claims take several years to accumulate. The problem could be overcome by expanding product categories to include as many products with similar risk characteristics as needed to produce statistically reliable data.

The new Statistical Plan will eventually provide a somewhat sounder basis for some product liability insurance ratemaking but not in a short time. Nor does there appear to be a means of accelerating the process since data will still have to come from insurance companies after the end of each policy year, and there will still be a required period for processing.

While preferable to the existing lack of data, historical claims experience can never be expected to be a precise indicator since changes in laws, inflation and other externalities may cause deviations from the projections. For example, an item of sports equipment which was never involved in a successful claim in the past, although there may have been numerous injuries, could, next year, generate a successful claim which, in turn, might well produce a spate of similar claims.

Regulation of product liability rates has been suggested as one possible way of controlling premium costs. Under regulation,

insurers would be required to justify their rates. The problem is that, without a reliable data base from which claims experience can be evaluated, it is not possible to determine with any degree of accuracy what a reasonable rate would be. Although rate regulation may be appropriate, the first step must be the development of a valid experience base. If such a data base were established it would be possible to utilize actual claim trends as a base for establishing premiums and justifying rates. The issue of whether or not participation by all product liability insurers in the data collection effort can be achieved voluntarily or should be mandated should be considered.

THE RISE IN PRODUCT LIABILITY PREMIUMS

Introduction

The primary reason that the Task Force was organized and directed to study product liability was the concern expressed by business firms about product liability insurance costs and the difficulties faced by many firms in obtaining product liability coverage.

Although there is significant evidence of product liability premium increases, other data related to product liability premium and claims trends are not available. One indication of the inadequacy of data is the fact that the total aggregate product liability premium in the U.S. is not known. The rates at which premiums for product liability have increased are only roughly estimated in the Insurance and Industry Studies. However, the belief that the increases have been high can be supported by the available data. Trends in the number and severity of product liability claims cannot be determined from the available data. It is, therefore, not possible to correlate premium increases with trends in the number and severity of claims.

The trend in premium increases is apparent both in the substantial basic rate increases for certain product lines which have been developed by the Insurance Services Office and by the pricing policies of insurance underwriters as evidenced by the premium increases experienced by companies surveyed by the industry contractor.

The Insurance Study's estimate of the effect of ISO revisions on product liability premium rates is shown in Table V-7. (Note that this table does not reflect December 1976 revisions in (a) rates.) See p. VI-11.

The insurance contractor used the results of the underwriting file survey to estimate the impact of rate changes on rates actually used to establish premiums. The results were reported in the Insurance Study as follows:

" . . . To obtain a clearer picture of rate changes that have taken place in (a) rated categories, we analyzed underwriting files that contained identical product classifications from 1974 to 1975. Unfortunately, the small number of companies for which these data are available make the average increases shown less credible than would be the case if a larger sample had been available. Further, the wide variation in high and low increases point up the variation in individual risk pricing decisions. Finally, it should be noted that these findings are not representative of the total change in rates because the product liability policies that are composite rated, loss rated, and rated on a retrospective basis could not be included in this analysis since individual product rates are merged with rates for other coverages. These, of course, are the larger accounts, representing a fairly small percentage of the total policies but a significant proportion of the total premium. Therefore, although the data clearly show that rate increases have occurred, the stated average increases shown should be viewed with caution; the sample is far too small to be representative of the practices of the industry.

" . . . With the preceding caveats, our analysis showed that rates in the eight target classifications had experienced average rate increases ranging from a low of 19% to a high of 568%. The average rate increase for all products outside the eight target product classifications was 251%. . . "

The results of the Insurance Study's analysis referred to above are given in Table V-8. The ranges appear more significant than the averages since the ranges are so great.

In the survey undertaken by the industry contractor, premium costs per \$1,000 of total sales were examined. Table III-6 indicates the 1971-1976 experience of the firms surveyed.

The causes of the premium increases are more difficult to ascertain than the fact of the increases. Since product liability premiums are determined, generally, by applying a rate to an individual firm's total sales, there is an escalation of premium by reason of an increase in sales, an increase in product price, or a combination thereof, even though there has been no increase in the rate itself¹⁷. In a limited sense, therefore, inflation benefits insurers in that it increases the sales base.

The latest data available to the Task Force indicate that, for at least some industries, increases in product liability insurance premiums are continuing. A survey conducted in April 1977 by the Machinery and Allied Products Institute (MAPI) found that over 90% of the respondents had experienced increased product liability insurance costs since the original MAPI survey in August 1976¹⁸. Thus, there is some evidence that premium increases have not leveled off as the Insurance Study (p. ES-4) had suggested they might.

* A Comparison Between Small and Large Businesses *

In commenting on the severe increase in insurance costs in connection with industrial machinery, industrial chemicals, automotive component, and pharmaceutical manufacturers, the Insurance Study concluded: "The problem of availability and affordability of product liability insurance is concentrated in the smaller firms in those industries." (ES-7, Insurance Study).

The data developed by the Task Force seem to substantiate the supposition that small firms are experiencing greater premium increases than are larger firms.

The results of the survey conducted by the industry contractor show that small firms experienced significantly greater increases than large firms in premium rates per \$1,000 of sales for both Comprehensive General Liability (CGL) as well as for Product Liability.

Table III-5 (Chapter III) from the Industry Study presents the calculated costs for CGL coverage per \$1,000 in total sales for the years 1971-1976 by size groups. Although all firms experienced increases, it appears that the larger firms have a substantially lower cost for CGL than small and medium-size firms, and the size of the differential is increasing.

Table III-7 (Chapter III) shows the estimated average cost per \$1,000 of total sales for product liability by product groupings. See Table III-6.

On the basis of the Industry Study Survey, it appears that the premium differential between large and small firms cannot be explained on the basis of product risk. Table V-10 indicates that in seven of the nine product categories for which data were collected, firms with less than \$2.5 million in total sales had higher rates for CGL per \$1,000 of total sales than their medium-size counterparts and that in all product categories, larger firms had rates less than one-half those of the other firms. (It should be noted that while the medium-size firms include firms with gross sales of \$2.5 million to \$100 million, 24.6% of the respondents in the group had gross sales of less than \$5 million, while 47.7% of the respondents had gross sales of less than \$10 million.)

An alternative explanation has been suggested by Mr. John F. O'Sullivan, Vice President of Marsh & McLennan, Inc., in a report prepared on behalf of the National Association of Insurance Brokers (NAIB) and presented to the Senate Small Business Committee on September 8, 1976, in which he said:

"...The insurance companies' response to their present predicament has a severe impact on small businesses. Since many small firms have the same potential liability exposure as the larger firms which generate much greater premium, the natural tendency is not to spend time making a detailed analysis of the relative merits of insuring the small firm. As a result, the markets are quicker to decline coverage for certain small firms, or if they agree to write, they charge rates based on conservative judgment which allows for a margin of error on the high side. Therefore, we have the feeling that premiums currently charged small businesses

could well prove to be excessive. . ." See also the discussion of premium differences at pp. VI-24.

While the Insurance Study did not analyze premium increases, it did find that larger firms had larger rate increases. This is not necessarily inconsistent with the Industry Study findings, for, as the Insurance Study noted:

" . . . on an overall basis, rate increases were substantially greater for large companies than for small, this analysis is for rate increases, which may or may not be indicative of upward or downward changes in total premium levels, as the final premium also depends on changes in exposures, limits of liability, application of experience. .
."19

It should also be noted that in the Insurance Study, "large firms" were defined as those with over \$2.5 million in annual sales. The Insurance Study does not present comparative premium data which would enable comment regarding premium levels as opposed to rate levels.

There is some indication that the research undertaken by the insurance contractor supports the NAIB assertion quoted above, for the insurance contractor states:

" . . . It is usually possible for the policyholder with more than \$10 million sales (underscoring added) to retain essential coverage by making some adaptation-e.g. assume a large deductible, accepting a retrospective rating plan. For the smaller firm, particularly the single-product firm, these adaptations are not as feasible. The account is not large enough for its own experience to have credibility for the insurer, and it does not have the financial resources to share a significant proportion of the risk burden itself. .
."20

It thus appears that small firms, at least in the nine industries surveyed, are treated differently from large firms by liability insurers, and this could have a significant adverse impact on both small firms and the users of their products.

Table V-11 presents a summary of the experience reported by the industry contractor.

The questionnaire sent by the House Small Business Subcommittee to major insurers asked whether the size of the insured company was a factor in the rating process and the company's willingness to insure. (Q.20). One firm (Crum & Forster) indicated a tendency to concentrate on smaller and middle-size risks, and to avoid products coverage for larger insureds. The other respondents indicated size could be a factor and noted the following:

" . . .Size is not necessarily a primary factor. It is the product per se as well as the performance of the manufacturer which are the governing factors in risk selection as well as the ability to obtain an adequate premium for the exposure." Continental

" . . .The size of the insured company is an important consideration, especially on inherently hazardous products. If there is a chance of catastrophic loss, the larger insured company will very likely generate a premium commensurate with the risk, but a small company will not." The Hartford Group

" . . .Because many larger companies have the ability and willingness to pay the expense of loss prevention facilities such as quality control, labeling, packaging, documentation, etc. for the purpose of complying with insurance underwriters' recommendations, the ability of a larger company to obtain products liability insurance is often enhanced. However, we are not unwilling to write small companies solely because of their size." St. Paul

" . . .The size of the account is a factor in the rating and risk selection process in several respects. The size of the account determines whether the premium level will permit the account to qualify for the application of certain filed rating plans--such as experience and schedule rating, retrospective rating, composite rating, loss\ rating, etc. The size of the account also determines the amount of consideration which the underwriter might give to the individual characteristics of the account as compared to the

average account. Financial ability, management continuity and expertise, product integrity and quality control, the diversity and changes in the product line, cooperation in loss control and claim defense programs, and individual account loss experience become more measurable as size increases. These factors may have either a positive or negative impact on the rating and selection process." Aetna

Certain differences in premium amounts attributable to firm size may be justifiable. Serious questions of public policy arise, however, where differences in the treatment of large and small policyholders cannot be justified on the basis of expense or loss differences between them.

Allocation of the Product Liability Premium Dollar

An important issue concerning the product liability system, including the insurance industry component of the system, is the efficiency with which it operates. A measure of the efficiency is provided by the way in which the premium dollar is allocated. The fraction of the premium dollar that is actually retained by the claimant after paying legal costs is one indicator of the efficiency. If the fraction of the premium dollar retained by the successful claimant is very small, one of the principal purposes of the system is defeated.

For the product liability system as a whole, little information is available to determine the net amount paid to claimants. Neither is it known how the amounts vary by type of claim, by type of claimant, or how the amount has been changing relative to other allocated amounts of the premium dollar.

Insurers generally expect premium dollars to cover losses and underwriting expenses in order to provide a satisfactory return on the capital employed. Losses include both the actual payments made to settle claims and the expenses incurred in claims investigation, legal defense, and the settlement process. These expenses are called loss adjustment expenses. Underwriting expenses include the salaries of underwriters, overhead allocations, State premium taxes, bureau and board fees, and commissions for agents and brokers.

The following tables indicate estimates of the allocation of the product liability premium dollar. Table V-12 presents the estimate developed by the Insurance Contractor and presented in a letter dated July 1, 1977, to the Subcommittee on Capital Investment and Business Opportunities, House Committee on Small Business.

Table V-13 presents estimates developed by the Federal Insurance Administration.

The assumptions used in developing the estimates in Table V-13 and the results are described by a spokesman for FIA as follows:

" . . .Based upon the \$5.2 billion [includes medical malpractice insurance] premiums for miscellaneous liability in 1976, it is possible to make a rough approximation of the ultimate distribution of those premium dollars in terms of products liability.

Accepting ISO's estimate that about 40% of miscellaneous liability represents products liability, about \$2.08 billion will be allocable to the latter.

In the first of the two tables printed below, a permissible loss and loss adjustment ratio of 60% is assumed which means that if loss and loss adjustment expenses exceed 60% of the premiums earned, underwriting profit will be reduced or eliminated. Although ISO has used a permissible loss and loss adjustment ratio of 57.1% in its filings for products liability manual rates, it is assumed, here, that underwriting expenses and profit will constitute about 40% of the premium dollar. The second table, however, assumes a 70% permissible loss and loss adjustment expense ratio and an underwriting expense and profit component of 30%.

Under the first table, after deducting the 40% for expenses and profit from the \$2.08 billion of premiums that will ultimately be earned, there is left about \$1.25 billion for loss and loss adjustment expense.

According to the Insurance Study, about 20 percent of the premium dollars go to loss adjustment expense, or \$416 million. In its closed claim study, ISO has estimated that about 85% of loss adjustment expense is expended for defense legal costs, or \$354 million in terms of this exercise.

Of the \$834 million left for claimants and their attorneys, under Table I, it would appear to be a reasonable assumption that 30% thereof, or \$250 million will go for claimants' attorneys' fees and other claimants' legal expenses. Under Table II, \$312 million would go for this purpose."

Under Table I there is left \$584 million for claimants' compensation. It would thus appear that, under this table, claimants' and defense lawyers and adjusters will derive considerably more compensation from the system than accident victims (666 million compared to \$584 million) and that claimant and defense legal costs, alone, will exceed compensation received by accident victims."

Under Table II, combined claimant and defense legal costs are a bit less than the compensation received by accident victims (\$666 million compared to \$728 million) but the combined legal costs and other loss adjustment expense almost exactly equals the compensation to be received ultimately by accident victims (\$728 million compared to \$728 million)."²¹

System costs of this magnitude have prompted calls for reform that are alleged to reduce transaction costs inherent in the tort litigation system. See pp. VII-279.

PRODUCT LIABILITY UNDERWRITING AND CLAIMS EXPERIENCE

Introduction

This section reviews the data currently available on aggregate product liability underwriting and claims experience. The source of these data is the Insurance Services Office (ISO). The underwriting figures were developed by ISO on the basis of reports filed pursuant to the ISO Statistical Plan. The claim

data consist of the preliminary results of the ISO Closed Claim Survey.

Underwriting Experience Data

ISO monoline data on reported and estimated premiums and losses through 1974 represent less than 40% to 50% of the total product liability premium written by the industry and are not necessarily representative of the total product liability underwriting experience. The underwriting data which are presented in this section are based on reports on monoline policies by all companies reporting to ISO.²²

One quarter of the monoline premium is attributable to manual rated monoline policies and the remaining three-quarters is attributable to small (a) rated policies. Tables V-14 through V-17 are based on monoline data.

Table V-14 presents the aggregate premium collected annually for this group of policies and the incurred losses estimated to be attributable to these policies. Incurred losses included paid claims, estimated costs of known claims, and estimated costs of potential claims (IBNR) as well as estimated expenses. Table V-15 through V-17 show the breakout of incurred-but-not-reported (IBNR) losses by bodily injury and property damage combined, and by bodily injury and property damage separately.

The loss figures reported in each of the tables should be clearly understood. They do not represent only claims paid during the years reported, but rather, they represent calculated estimates of what amounts ISO projects may ultimately be spent for each policy year for both payments to claimants and loss adjustment expenses. The loss figures were calculated by ISO by applying a loss development factor to the incurred loss figures submitted by the reporting companies. This is done in the following fashion. Insurers submit five reports on losses for each policy year. The first report, which includes paid claims, reserves for known claims and loss adjustment expenses, but does not include IBNR estimates, is made 27 months after the beginning of the policy year for which the report relates. Four subsequent reports are made annually. A loss development factor is

determined by comparing the average changes between first reports and subsequent loss reports in the three most recent policy years for which data were reported. Similar procedures are used to determine the estimates for subsequent reports. The factor currently used to develop incurred losses from the first report to the fifth report is 1.876. A factor of 1.02 is applied to the fifth report.

The loss figures reported, particularly those for the most recent years, may deviate significantly from the actual losses. Of course, the actual losses for 1973 and 1974, for example, are not likely to be known with much certainty until 1978 and 1979. It is possible, however, that the 1973 and 1974 loss estimates may overly compensate for the apparent underestimation of losses in the early seventies. During this earlier period significant upward revisions were made to the early loss estimates. The causes of the earlier underestimation have not been determined definitively, although alternative explanations have been advanced.

Whatever the cause, there is no doubt that abrupt upward revisions were made. These changes would, of course, be reflected in the loss development factor used by ISO and its member companies. Such a reflection would be appropriate if the changes were indicative of a new loss trend. If, however, it reflects a singular "catch-up" reaction by insurers, a new trend may not, in fact, exist. Similarly, given the experience of the early seventies, it is reasonable to assume that the insurers, in their own estimates of potential losses, are acting very conservatively in order to avoid underestimating losses. If such is the case, the ultimate projections may reflect a redundant overestimation; i.e., the overestimation existing in the incurred losses reported to ISO, multiplied by a loss development factor which may also overestimate expected losses. It is also possible that the converse situation may be true. Until a system is fully developed which permits better evaluation of actual claims and their trends, it will be difficult to make predictions with precision. In the absence of better information, it is probable that conservative assessments of potential losses will continue in at least the near term.

In the tables V-14 through V-17, the estimates indicate that ISO expects losses to ultimately exceed collected premium for both 1973 and, to a far greater extent, 1974.

The issue of whether or not the estimated losses are overstated or understated is critical to an analysis of the product liability situation since the loss figures are used in the calculation of the loss-and-loss-adjustment ratio from which ISO evaluates the need for manual rate increases. The ratio is calculated by applying a "loss trend" factor to the estimated losses and dividing by the earned premiums at current rate levels adjusted by the "exposure offset" factor. For the policy year ending December 31, 1973, the trend factor was 1.753 and the exposure offset factor 1.174. These factors would be used to determine rates for policies written in January 1976²³.

The resulting loss-and-loss-adjustment ratio is compared with the expected loss ratio. The expected loss ratio is currently 0.571. The expected loss ratio represents an estimate of the percentage of premiums at present manual rates that is required to pay claims. ISO estimates that 37.9% of the premium is required for underwriting expenses plus 5% for profit and contingencies. Thus they suggest that no more than 57.1% of the premium dollar should go for losses. The loss-and-loss-adjustment ratio is divided by the expected loss ratio. The result is the indicated rate level increase.

It is apparent from the above that the primary determinants of rate increases are estimates of expected losses and changes therein. In Table V-14 the ratio given for 1973 is 1.107. The ratio for 1974 is 1.474. These ratios would suggest that further manual rate increases may be anticipated. Since the figures include small (a) rates as well, these might be expected to also be increased. If the expected loss ratio of 0.571 and the 1974 loss-and-loss-adjustment ratio of 1.474 were used as determinants of the necessary 1977 premium rates, those rates would be 258% of the 1974 rates.

Claims Experience

Introduction

Until recently no aggregate data on product liability claims have been available. Although commentators have suggested that there have been "dramatic increases" in the number and cost of product liability claims, no direct evidence has been available to either support or refute the contention. In 1976 the Insurance Services Office, with the cooperation of its member and subscribing companies, sought to remedy this lack of data and undertook a major closed claim survey which sought to collect data on all product liability claims closed between July 1, 1976 and March 15, 1977. The final results of this survey, which are not yet available, should be of real value to insurers and others interested in product liability. This section focuses on the preliminary report of the survey which was published in December 1976.

The Preliminary Report on the ISO Closed Claim Survey

The preliminary analysis was based on approximately 7,800 claims closed and reported to ISO between July 1, 1976 and November 1, 1976. The results are useful to the extent that they give some indications of the type of data which may be anticipated in the final report, but they are not necessarily representative of overall claims experience.

Several problems are apparent in the preliminary report which will, hopefully, be overcome in the final report. These problems include the following:

Trending. ISO chose to apply a trend factor to certain of the payments reported. Although ISO has made both trended and untrended data available, its analysis of the preliminary results relies on the trended data. Briefly stated, ISO's method of trending is to translate the incident data of each closed claim to July 1, 1976 and multiply all cost data on each claim by a selected annual factor. The effect of the trending is to adjust the costs so as to estimate what each claim might cost if it occurred in July 1976 and was closed sometime in the future.

Thus, a claim which had a six-year lag between occurrence and closing would be adjusted so that the trended cost would reflect ISO's estimate of what it would cost if closed in 1984.

In a review of ISO's trending, Howard B. Clark of the Federal Insurance Administration observed:

" . . . Inasmuch as the normal function of trending is ratemaking, which is clearly not the purpose of the closed claims study, there are those who will question the wisdom or propriety of trending incident to this exercise. . . ."

In explaining its use of trended data, ISO has said: "This allows us to examine what would happen if all incidents in the survey occurred in the same year." Since, manifestly, the incidents surveyed did not all occur in the same year, the purpose of the exercise remains obscure. Moreover, ISO has warned that: "The nature of a closed claim survey is such that it provides a truly accurate picture of only the past environment" (p. 12 Closed Claim Survey). In addition, ISO has cautioned: "It is possible that an incident from 1965 would not have occurred in 1976 due to changes in the legal environment, social attitudes, business expectations, government, etc. Conversely, many of the kinds of incidents which are generating claims today may not have occurred or generated claims several years ago." In the light of these cogent ISO caveats, it is difficult to descry either the purpose or the worth of the trended data²⁴."

When completed, the ISO Closed Claim Survey should provide a description of the claims closed during the period for which the data were collected from the participating companies. The untrended data will describe the distributions of claims by product classes, types of claims, status of injured parties, sizes of payments, etc. for those claims actually closed. Use of the trended data to describe such distributions would be inappropriate.

Representativeness of the ISO Sample.--Whether or not the underwriting practices and claims settlement procedures of the twenty-three participating insurance firms are representative of those of the industry as a whole is not known. It is also not

known what fraction of the total product liability premium was written by the twenty-three during the period when the closed claims were initiated, nor is it known what fraction of the total losses incurred was incurred by them during the period. These unknowns severely limit the statistical reliability of the data and the validity of generalizations which can be drawn from them.

The results presented in the Preliminary Report have two further deficiencies as indicated by the following statements in that report:

" . . .the number of forms available at this point does not provide a sufficiently large base to yield a truly representative picture of claims closing today. . ."

" . . .one participating company opted to complete forms for all product claims in July, but for claims closed after July 31, only those which received payment greater than \$1,000 were submitted to ISO. In this preliminary analysis that company has been included in all reports. It is our intention to run future reports both with and without that company's data. . ."²⁵

The preliminary results reported by ISO in its December report attempt to give indications of such information as:

- the products generating the most payment dollars
- the status of injured party receiving payment
- time intervals in the claims process

Tables V-18 and V-19 compare the trended and untrended results of data processed by ISO through November 1976 for products generating the most payment dollars for bodily injury and for property damage. It is apparent that the ISO trending method shifts the percentages attributable to products and party status and inflates the amounts of payments as well. In Table V-18 the effect of trending on the one claim paid for a bodily injury caused by a "laundry centrifugal extractor" is to increase the actual payment of \$195,000 to a projected payment of \$1,454,700. In the same table, the percentage of payments attributable to "chemicals" was changed from an actual 1.9 to 5.6 by the trending.

Table V-20 shows the time distributions involved between the occurrence and the reporting of the claims. Table V-21 indicates the time distributions between the occurrence and the closing of the claims.

Table V-22 compares the trended and untrended results of the preliminary processing by ISO on the distribution of product liability claims by the status of the injured party in the occurrence resulting in the claim. ISO's trending of the data increases the percent of total payment and inflates significantly the average of non-zero payments for both bodily injury and property damage attributable to those whose status is "non-purchaser, user or consumer."

Table V-23 indicates the distribution of claims closed at various stages of the legal system. The payment averages are for all non-zero payments. For example, of the 165 bodily injury claims which ISO reports as going to a court verdict only 39 were awarded payment. If the total amount attributable to court verdicts were divided by the number of claimants who obtained payment as well as those who didn't, the average cost per claim of claims going to a court verdict would be \$11,473 in payment and \$7,441 in allocated loss adjustment expense, a total of \$18,914 per claim. If the same calculations were performed on the 40 claims for which settlement was reached during trial but before a court verdict, the figures would be \$29,665 average payment plus \$12,136 for a total of \$41,801 or 2.2 times the average cost of those obtained from a verdict.

The foregoing discussion and tables have been presented for illustrative purposes. It should be noted that while the data presented may be representative of the experience of 23 companies during the reporting period, there is considerable question about whether they represent more than these companies. As was noted earlier²⁶, one company, Liberty Mutual, submitted complete reports for only one month after which they submitted only paid claims closed with payments in excess over \$1,000 dollars²⁷. Table V-24 indicates the total number of bodily injury claims paid by Liberty Mutual in 1976. The average payment is stated to be \$2,105. Given the large volume of claims handled by this company in the \$1,000 to \$5,000 payment range, it is reasonable to assume that the inclusion of these claims in the ISO Closed

Claim Study might have significantly affected the results. It should also be noted that the table includes only the number of paid claims leading one to infer that there must be a significant number of claims for which payment was not made which were also excluded from the Closed Claim Survey.

Conclusion

Several conclusions can be drawn from the preceding discussion. As regards the underwriting data presented two general comments apply. First, insofar as the aggregate product liability premium is unknown, it seems appropriate that means of obtaining these data be explored. One means to accomplish this would be to require that product liability experience be broken out and reported as a separate item on the financial reports filed annually with Insurance Commissioners. The second comment relates to the manner in which losses are estimated and rate increases are projected. The current methodology is imprecise and may be subject to significant error. The primary means which could be utilized to correct these deficiencies would be the annual collection of data on all product claims. The Closed Claim Survey conducted by ISO clearly demonstrates that the data can be collected. If the deficiencies in the existing survey could be overcome, primarily by encouraging or mandating all companies to submit data on all claims, and if the survey were done on a continuous basis, the examination of changes in untrended data would provide a strong basis for future decisions by insurers and their regulators.

THE FINANCIAL SITUATION IN THE PROPERTY-CASUALTY INSURANCE INDUSTRY

Introduction

This section attempts to determine how the financial condition of product liability insurers in the past several years has influenced the rate at which premiums have risen. To do this, it would be appropriate to examine the financial indicators of product liability insurance as a separate line as well as indicators for broader categories of insurance which include product liability insurance. This would permit comparisons with other lines within the broader categories and would allow direct

inferences concerning product liability premiums. However, since product liability experience is not reported separately, only the overall results for the property-casualty insurance industry and the financial indicators for miscellaneous liability insurance, a line of the property-casualty insurance industry that includes product liability insurance, are analyzed.

The financial data analyzed are those reported by the insurance companies and the insurance trade press. Among the sources used are the Annual Reports filed with the District of Columbia Insurance Department by the top 10 writers for miscellaneous liability insurance (on the basis of total premiums written).²⁸ The primary indicators used in this discussion are the "combined loss and expense ratio" and the "premium to surplus ratio." The former is considered indicative of the relative underwriting profit or loss. The latter is considered indicative of capacity, that is, the ability to underwrite additional risks. Because of insurance accounting conventions, and the fact that certain of the amounts reported as losses are estimates, these ratios may not reflect the actual financial situation. They are useful, however, to identify relative changes from year to year, and as indicators of the perceptions of carriers regarding their standing in the industry.

Reserving practices affect both financial indicators and premium levels. They are reviewed prior to the discussion of the financial indicators and their implications for products liability.

Reserving Practices

Amounts set aside in loss reserves constitute a major component of what is reported as "incurred losses" for the most recent policy year. (Incurred losses include claims paid, reserves for claims and loss adjustment expenses.) The total amount of reported "incurred losses" significantly affects the financial indicators, as well as premium rates as was noted on p. V-26. It is important to note that loss reserves do not represent actual expenditures, but rather, are estimates of expected claim costs for the period. Thus, the relationship of the amount reported as "incurred losses" to ultimate costs is

only as good as the estimates of these costs; that is, the reserving practices.

As discussed earlier, two categories of loss reserves exist; those which are established to cover the cost of known claims, and those established to cover the cost of potential claims; the incurred-but-not-reported (IBNR) claims.

The Task Force staff analyzed the incurred losses of the 10 leading insurance companies writing miscellaneous liability insurance. For these companies, incurred-but-not-reported losses were 39.2% of total incurred losses for miscellaneous liability in 1975 and 42.1% in 1976. IBNR loss percentages for the individual companies ranged from 16.1% and 26.2% for the two lowest to 51.0% and 55.8% for the two highest in 1975. The 1976 range was from 19.5% and 34.8% for the two lowest to 50.8% for the two highest. Incurred-but-not-reported losses were not broken out separately on the Annual Statements until 1975. Whether the product liability portion of the miscellaneous liability line for these companies exhibit a higher or lower incurred-but-not-reported fraction in 1975 and 1976 than the whole line is unknown.

The primary insight that can be gained from the analysis is provided by examining annual changes made in estimates for incurred losses for a given year. In general, the estimates were revised upward through 1976. Table V-25 indicates the annual changes made in incurred loss estimates by the 10 companies between 1972 and 1976. These changes are necessitated because incurred losses, including incurred-but-not-reported losses, for any given year are estimates. As the loss experience for a given year "matures" in subsequent years, losses become known with more precision. In the 1976 annual statements, revisions of incurred loss estimates through 1976 are given for the earlier years in which losses were incurred.

It is apparent from the data that reported total incurred losses in the miscellaneous line have increased significantly over the past few years. While these increases have resulted in underwriting losses and have led to increased premiums, it is not possible to determine the overall percent attributable to product liability. Nor is it possible to determine whether the total

incurred losses are overestimated or underestimated as a result of reserving practices which may be based on inaccurate estimates of the numbers and costs of individual claims. Insofar as companies employ differing reserving practices and insofar as estimating reserves (particularly IBNR) is an imprecise art which, at least for product liability, lacks a good data base, it is reasonable to assume that the amounts reported as total incurred losses are imprecise.

Unresolved Issues in Reserving Practices

The precise impact of reserves for incurred losses, including incurred-but-not-reported (IBNR) losses, on product liability underwriting losses, rates, and the determination of the profitability of the line is still unresolved.

Similarly, the Task Force staff has not been able to directly address the issue of whether or not the unpredictability inherent in the reparations and insurance system lends itself to a continuing redundancy in the reserves. The entire area of reserving practices is one that has been the subject of considerable debate which appears certain to continue. It is an area in which there is a vital need for more objective study.

Overall Property-Casualty Experience

Property-casualty insurance includes miscellaneous liability, workers' compensation, automobile and other lines. Miscellaneous liability premiums in 1976 represented \$5.2 billion of the \$59.5 billion property-casualty premium.

One of the reported reasons for the difficulty in obtaining product liability insurance is the lack of capacity for writing new business in the property-casualty insurance industry. One measure of capacity used by insurers is the written premium-to-policyholder-surplus ratio. When this ratio is high, insurance companies become more conservative in selecting the risks they will insure. Product liability is one of the lines where risks (exposures) are believed to be high and companies are selective in writing additional accounts.

Policyholder surplus is the amount remaining after all liabilities are deducted from assets and includes such sums as paid-in-capital and special voluntary reserves.

The rationale behind the premium-to-surplus measure is as follows: Policyholder surplus is viewed as a contingent reserve which could be used to cover unanticipated losses. Premiums are viewed as a surrogate for exposure and therefore potential liabilities. If premiums overstate or understate this exposure, actual capacity will be misrepresented.

The aggregate premium to policyholder surplus ratio for the property casualty insurance industry increased sharply between 1973 and 1974 and remained essentially constant at the high level in 1974, 1975 and 1976. It should be noted that an increase in premium rates will itself decrease insurance capacity for the short term. The reason for this is twofold. First, the rate increase raises the premiums-written portion of the ratio. Additionally, the immediate effect will be to increase the insurers' unearned premium reserve liability (in insurance accounting this is an actual, not contingent liability) thus impacting the policyholder surplus portion of the ratio.

The premium-to-surplus ratios shown below are based on information gathered from the Insurance Information Institute and A.M. Best Company. The premium-to-surplus ratios for the property-casualty insurance industry from 1971 to 1976 are as follows:

1971: 1.83-to-1	1974: 2.76-to-1
1972: 1.65-to-1	1975: 2.53-to-1
1973: 1.96-to-1	1976: 2.57-to-1

Other indicators of the financial condition of the overall property-casualty insurance industry are to be found in Table V-26 which summarizes estimates of the financial operating results of the industry.

The industry has reported substantial statutory underwriting losses over the past few years. Statutory underwriting losses were \$2.12 billion in 1974, \$3.63 billion in 1975 and \$1.67 billion in 1976. As noted in the August 29, 1977, Executive

Letter of the Insurance Information Institute, data reported to the California Insurance Department on Fire, Casualty and Allied Lines indicate an underwriting profit of \$123 million in the 12 months preceding June 30, 1977. (The reporting companies write about 90% of the total property-casualty insurance written nationwide.) This would indicate a net underwriting profit for the property-casualty insurance in industry in 1977. The statutory underwriting gain (or loss) is determined by the differences between earned premium and the sum of incurred losses and expenses for a given year. As noted previously, incurred losses include the actual costs and anticipated costs of claims reported as well as the costs of anticipated incurred-but-not-reported losses. The use of only earned premium in determining underwriting losses tends to underestimate the income position, particularly in light of the fact that the prepaid expenses referable to commissions and other acquisition costs (and which, therefore, could logically be amortized over the policy periods) are chargeable in full against income as represented by earned premiums. Although this may well afford a very useful "acid test" for gauging the solvency or solidity of insurers, its utility otherwise is questionable.

The combined-loss-and-expense-ratio is an indicator of the relative underwriting profit or loss. This ratio is determined by combining the loss ratio and the expense ratio. The loss ratio is the quotient resulting from dividing incurred losses by earned premiums. The expense ratio is the quotient resulting from dividing incurred expenses by either earned or written premiums³⁰. A combined ratio of less than 100 indicates an underwriting profit whereas a combined ratio over 100 indicates an underwriting loss. This indicator has improved substantially from 1975 to 1976, dropping from 107.9 to 102.8.

Net investment gains made it possible for the industry to have net income of \$1.2 billion in 1974, \$0.6 billion in 1975 and \$2.65 billion in 1976. However, these profits were substantially lower than in the previous three years.

In retrospect, it can be argued that the underwriting profits in 1971 and 1972 were overstated. Reserves that had been initially set up to cover claims filed prior to 1973 were later considered to be inadequate. Underwriting results were

considered poor in 1973 and turned into reported underwriting losses in 1974. Increased competition and rate cutting appear to have been factors in this development, as well as the high rate of inflation and some extraordinary natural catastrophes which occurred during this period³¹.

The underwriting losses in 1975 can be attributed, at least in part, to a delayed reaction to the erosion of reserves established in prior years. According to Standard & Poor's Industry Surveys, if it had not been necessary for many companies to bolster their reserves for unsettled claims carried over from prior years, a turn in underwriting margins would probably have occurred by early 1975³². The improvement in underwriting results noted in 1976 may be attributed both to the improved condition of reserves and the effects of rate increases in late 1974 and 1975.

Most property-casualty insurers remained profitable during the 1971-76 period in spite of the unsatisfactory underwriting experience during the latter part of the period. This condition is attributable to investment income as well as to tax credits on the underwriting losses. Investment income of property-casualty companies is usually the primary source of net earnings. Unlike life insurance where a large portion of investment income is paid out in policyholder benefits, investment income of property-casualty companies is carried straight to earnings³³. In contrast to the volatile nature of underwriting income, investment income has grown at a steady rate during the last 10 years. Between 1971 and 1975, investment income of stock property-casualty companies grew from \$1.8 billion to \$3.1 billion³⁴. For 1976, investment income is expected to be even higher than for 1975 when all the reports are in.

Miscellaneous Liability Experience

Table V-27 compares aggregate premium for the total property-casualty industry with those of the miscellaneous line.

Overall miscellaneous combined-loss ratios are compared with overall property-casualty underwriting combined-loss ratios in Table V-28. The miscellaneous liability data are taken from Best's Insurance News Digest, Property/Casualty Edition, January

3, 1977. Figures for 1976 miscellaneous experience are estimates made by A. M. Best.

These figures indicate that miscellaneous insurance premium volume has more than doubled since 1972. However, when viewed as a percentage of aggregate premium for the industry, its share increased only from 6.4% in 1972 to 8.7% in 1976.

The combined ratios seem to indicate that statutory underwriting losses have been greater within the miscellaneous line than in the total industry. On the other hand, it would likewise seem that the investment income allocable to this line, characterized by slow pay-out and long-standing reserves should be greater than for lines without those characteristics.

The substantial improvement in the combined ratio for miscellaneous liability in 1976 is largely due to large increases in aggregate premiums. Observation of the loss ratios would indicate that the underwriting results in the industry are greatly improved.

The overall comparison of the experience of the 10 leading companies with the total miscellaneous liability line is shown in Table V-29. In the 1972 to 1974 period, the loss ratios were worse for the 10 companies than for the total line, but they showed more rapid improvement in 1975 and 1976. For the 10 leading companies, the ranges of loss ratios for 1972 through 1976 are given in Table V-30. It appears from this limited analysis that statements concerning statutory underwriting experience for miscellaneous liability would have to allow for the fact that such experience of some insurers is decidedly better than of others. Moreover, the income from investments attributable to funds supplied by policyholders must always form a backdrop for such statements.

The Implications of the Financial Trends for Product Liability Insurance Costs and Availability

Although the overall underwriting results have shown significant improvement recently, there is no reason to believe that the situation is likely to improve for those manufacturers

and suppliers who have been unable to purchase sufficient product liability insurance or who have been affected by severe premium increases. To the extent that insurers perceive that claims for high risk products were major contributing factors in the underwriting losses recently experienced, it seems reasonable to assume that they would prefer to emphasize coverage of low risk products. Thus, coverage is unlikely to be available widely for the small- and medium-size manufacturers of a single product that is deemed to be a high risk, or for other small or medium manufacturers for which high risk products are most of the production. For those manufacturers who produce a mix of some high risk products but a larger proportion of low risk products, coverage will probably be available and affordable. This is because insurers will probably be willing to write high risk products coverage as part of a package for which the total premium is relatively large. Even though the price of the high risk portion of the coverage may be high, the financial impact on the insured may be dampened since the total premium as a percentage of gross sales will be reduced by including the price of coverage for low risk products.

The poor financial results were responsible for a substantial part of the subsequent premium increases. However, the poor financial results could have been due to over estimations of losses. Whether the rates were too low or the loss estimates too high will not be known definitively for some time. Based on miscellaneous liability current financial results, particularly for those companies experiencing high loss ratios, it is likely that premium levels for product liability will increase in the near future.

REINSURANCE AND SURPLUS LINES INSURANCE

Introduction

This section focuses on the role of reinsurance and surplus lines insurance in the product liability market. Insofar as both reinsurance and surplus lines are essentially unregulated, it is difficult, if not impossible, to obtain sufficient data to definitively evaluate their capacity to provide coverage; nonetheless, this section attempts to identify the role of each

and the impacts they may have on product liability insurance availability and cost.

Surplus Lines Insurance

Characteristics of Surplus Lines Insurance and Coverage Trends

Surplus lines insurers are, by definition, those insurers which are not admitted to write regular insurance business in the states in which the insurance is sold. These nonadmitted insurers emerged many years ago as a supplement to the traditional market. Their purpose has been to write the coverage and limits that the admitted companies, (companies licensed to do business in the policyholder's state) cannot absorb. These nonadmitted insurers have also gained a reputation for writing unique and unusual forms of coverage. However, as these coverages become better known and the loss costs become more predictable, admitted insurers tend to "take over" the market for these coverages. This is not particularly difficult as the surplus lines laws that regulate the affairs of nonadmitted insurers generally require that coverage written by these insurers first be refused by admitted companies.

Another significant characteristic of the surplus lines market is that surplus lines insurers are often prohibited from charging a lower rate than that available from licensed insurers. Thus, coverage available from these companies is often offered at a multiple of the premium charged by admitted insurers. Surplus lines insurers can charge these higher premiums as their policyholders have exposure which normally cannot be absorbed by admitted insurers; thus, if they want coverage, they must pay the premiums the surplus lines insurers want.

The consequence of this pricing practice is that business flows to the surplus lines markets during periods when primary insurers are cutting back their writings or avoiding certain classes of risks. Thus, in 1975, the surplus lines markets reportedly absorbed large increments of medical malpractice coverage³⁵.

Table V-31 shows the amount of all lines premium written by surplus lines companies during the four-year period between 1972 and 1975. Premium volume increased 51% between 1974 and 1975 to \$612.8 million following increases of only 7.8% between 1972 and 1973 and 16.3% between 1973 and 1974. Premiums are further estimated to have increased substantially between 1975 and 1976.

Regulation of Surplus Companies

Each state has passed a surplus lines law, however, they vary in detail. Generally, these laws place the primary regulatory burden upon the surplus lines broker. Usually, a broker who wants or needs to do business with a nonadmitted insurer must first have a special license. Since the broker is responsible for payment of the premium tax (a duty normally performed by the admitted insurer), the broker usually posts a bond guaranteeing payment. Non-U.S. based surplus lines insurers (called alien insurers) such as Lloyds of London must meet specific trust fund requirements set by the surplus lines statutes in some states and must be on the insurance commissioner's "approved" list of insurers in other states. Another distinctive surplus lines regulatory feature is that surplus lines brokers must file affidavits within a prescribed time period, such as 30 days after procuring coverage. These documents usually state placement was not made for a lower rate than that available from admitted insurers.

Several state insurance departments were contacted by the insurance contractor requesting information on the impact of surplus lines insurance on the product liability market. The state regulators commented that they believed that there has been a sharp increase in the involvement of surplus lines carriers in product liability business in 1976, and that this involvement will undoubtedly increase in 1977³⁶.

Reinsurance

Characteristics of Reinsurance and Coverage Trends

There are basically two types of reinsurance--treaty and facultative. Treaty reinsurance covers an entire line of insurance whereas facultative reinsurance covers only a specific

risk. Facultative reinsurance is particularly relevant to this discussion since it is ordinarily used in those cases where a risk is too large for a primary insurer to wish to assume it alone or where the risk is both large and subject to substantial uncertainty. Facultative reinsurance is a means by which the primary insurer can share the risk on a particular policy. In effect, the primary insurer purchases insurance (facultative reinsurance) to provide indemnification against certain losses.

The Insurance Study indicates there is a trend toward more reinsurance for products liability. It concludes:

" . . . During our interviews with reinsurers, we learned that their volume of facultative business trends to increase whenever their customers (the insurers) are particularly worried about a given line of business or class of risk. Thus, during 1975, they wrote a large volume of facultative medical malpractice coverage. In previous years, aircraft products and pharmaceutical risks passed through similar phases. As the loss-cost patterns become more stable, insurers write these exposures more willingly and the reinsurers see a drop in the demand for their risk-bearing capacity. . . ."

" . . . Although our underwriting file reviews showed facultative reinsurance on only 5% of the policies reviewed, several of the reinsurers we interviewed indicated that they are writing far more product liability coverage today than 5 years ago. This coverage is being written primarily by the traditional treaty method (reinsurance for an entire line of business--e.g., miscellaneous liability), but an increasing amount is being written through facultative arrangements³⁷."

One of the major practical differences between treaty and facultative reinsurance is that facultative reinsurance is more cumbersome and expensive than treaty reinsurance. Whereas any underlying policy coming within the scope of a reinsurance treaty is automatically covered by reinsurance, the primary insurer must take care to see that a policy upon which facultative reinsurance is necessary or desired is reinsured and that the proper amount of the premium is assigned to the reinsurer. The home office or branch office copy of the face of the policy (the "daily report")

must be suitably noted with respect to the nature and amount of the reinsurance and such reinsurance must be taken into account in the handling and payment of claims. The handling of facultative premiums and losses is likely to involve greater detail and expense than treaty reinsurance. All of these would appear to add up to higher cost for facultative reinsurance and higher underlying premiums to support the greater cost of facultative reinsurance.

Table V-32 indicates reinsurance premium volume for American reinsurance firms. The table includes both treaty and facultative reinsurance.

Product Liability Reinsurance Premiums

Total reinsurance premiums for product liability can only be roughly estimated because the reinsurance premium figures are typically attributed to a range of liability exposures. However, the Reinsurance Association of America estimates that total products liability reinsurance premiums probably range between \$200 million to \$300 million annually (1976 estimates). They further estimate that 15% to 20% of all liability policies with products coverage are currently reinsured by treaty or facultative arrangements.

The Federal Insurance Administration estimates the reinsurance portion of the total miscellaneous liabilities line at \$288 million in earned premiums in 1975. If this estimate is accurate, the Reinsurance Association of America estimates are high. That is, product liability reinsurance premiums in 1976 might be \$200 million or even less.

Regulation of Reinsurance

Although a few states recognize only reinsurance provided by a reinsurer licensed or approved as a reinsurer, in most instances the state insurance regulatory authority has little hold over the foreign (i.e., out of state) or alien (i.e., out of country) reinsurer. Consequently reinsurance, whether facultative or treaty, is subject to little regulation at the state level and to no rate regulation at all, even in theory. The statutory criteria contained in state rate regulatory laws

which prescribe rates that are adequate, not excessive, and not unfairly discriminatory do not apply to reinsurance.

Reinsurers establish their own incurred-but-not-reported reserves and reflect these reserves in their rate structures. Since the incurred-but-not-reported reserves of the primary insurer are bulk reserves not placed upon the individual cases (and thus not allocated ratably to the excess reinsurer), there would appear to be some danger of redundancy in reserves resulting from the cumulative effect of the respective incurred-but-not-reported reserves, both of which are taken into consideration in the structuring of rates.

Remote though the original insured may be from the reinsurer in terms of contractual privity or relationship, it is evident that the reinsurance transaction wields a pervasive influence upon the underlying insurance transaction.

Inasmuch as the reinsurance contract is purely one of indemnity, if the primary insurer were to become insolvent and incapable of paying the losses, the reinsurer would escape since there would be no loss to indemnity. It is for this reason that the states, through statute or regulation, refuse recognition of any reinsurance which does not contain an insolvency clause to the effect that the reinsurance shall not become invalidated or uncollectible because of the insolvency of the ceding insurer but shall become payable to the receiver, rehabilitator, or liquidator of such insurer.

Impact of Reinsurance and Surplus Line Trends on Product Liability Insurance

On the basis of the foregoing it seems apparent that, at least to some extent, surplus lines carriers and facultative reinsurance seem to be having a positive impact on the availability of product liability insurance but, on the other hand, both are likely to significantly increase the cost of such coverage for the manufacturer or supplier who must obtain surplus lines coverage or whose policy is covered by facultative reinsurance. Moreover, the fact that policyholders and claimants will not, in many instances, receive protection from state

solvency guaranty mechanisms should be a matter of concern to insurance regulators.

CONCLUSIONS

This section focuses on the major analytic conclusions derived from the examination of the product liability insurance system and presented in the preceding sections, and provides certain conclusions regarding the manner in which the system might be adapted to more adequately achieve its objectives. The most apparent finding, and one which permeates each of the preceding sections, is that data, specific to product liability, are lacking. So long as products coverage was perceived by each of the parties--claimants, insurers and product manufacturers and suppliers as stable and functional, and so long as each objective was perceived as being met, the need for specific data was neither apparent nor, perhaps, would the cost of attaining them have been justified.

As the preceding sections indicate, however, serious conflicts have arisen among the parties involved and significant economic impacts have been felt, particularly in specific industry sectors. In particular, insurers contend that the costs of claims are rising dramatically and that premium increases have been essential in order to maintain sufficient funding to pay claimants and claim costs as well as to secure a profit. Manufacturers and suppliers content, on the other hand, that premium costs are unreasonably high. Currently there are insufficient data to adequately assess the relationships between premiums and claims. The data that are available indicate clearly that premium increases have been relatively substantial, and that certain industry sectors and certain types of firms have been particularly affected but it is impossible to determine whether or not the situation is a necessary response to claims experience.

In view of the volatility and uncertainty currently existing it appears that certain actions should be considered by the insurance companies, insurance regulators and policymakers in order to increase certainty and confidence in the operation of the product liability insurance system. The conclusions reached

involve data collection, ratemaking and regulation and financial disclosure and accountability.

Better Data Should Be Collected For All Product Liability Insurance Premiums, Losses and Claims.

Premium, loss and claim data should be collected in a manner that is as statistically sound and reliable as possible for ratemaking and other purposes. Data on all product claims, such as were sought in ISO's Closed Claim Survey, should be collected on a continuous basis and untrended results should be published annually. Data should be collected from all insurers.

The improved data base is an essential first step in the solution of product liability problems. In and of itself it will permit examination of actual trends in product liability. Many of the problems which have arisen in product liability seem to be attributable to a lack of actual data, and to a significant amount of factually unsubstantiated rhetoric. Much has been made of the allegation that "one million product liability claims were filed in 1976," yet ISO's Closed Claim Survey seems to indicate that the actual number of total claims was considerably less than 100,000. Similarly, ISO data indicate that the average payment was less than \$20,000. These figures are significantly lower than those which had been claimed by some. The availability of actual data will provide a considerably greater degree of certainty than currently exists and should considerably improve the decision making ability of insurers and others.

The improved data base is also essential to the implementation of the other suggestions made in this section, particularly those related to ratemaking and its regulation.

Product liability insurance rates and premiums should be more closely related to statistical assessments of product risk.

The improved data base and the availability of actual data on trends in product liability claims could permit product liability rates and premiums to be more closely established on a basis more commensurate with actual product risk. As has been noted in this Chapter, rates for most risks are based on subjective estimations of anticipated loss costs. Consequently, it is not currently

possible to draw direct correlations between premiums and product risk and significant unexplained differentials exist among premiums charged firms producing similar products. The preliminary ISO Closed Claim Survey indicates that it is possible to collect data on all claims, but the results also indicate that collecting sufficient data for ratemaking purposes for some product classes may be very difficult. To overcome this problem, consideration should be given to expanding those product classes where experience is generated slowly. New classes could be made up of as many products with similar risk characteristics as necessary to assure that enough claims to provide a statistically reliable ratemaking base would be reported annually. Insurers should utilize this data in developing premiums that are related to product risk.

Product liability insurance rates and premiums should be monitored to ensure that they are fair, nondiscriminatory and reasonably related to product risk.

Insurance regulators are empowered to monitor and review insurance rates and premiums to ensure that they are fair and nondiscriminatory. In the area of product liability insurance, consideration should be given to targeting review to those rate increases which exceed a threshold amount. Such a procedure would focus regulatory attention on those rates and premiums which have the most significant adverse effect on business. Such regulation could also promote greater uniformity among rates charged by an insurer to firms producing products with similar risks.

Since insurance regulation is currently undertaken only at a state level, it is essential that the state regulators have access to a data base which includes nationwide experience on all product liability claims. Regulators need such a data base in order to evaluate rate requests effectively.

There is a need to promote greater financial disclosure and accountability in product liability insurance

It would be constructive if a system were devised whereby insurers would report all product liability experience as a

separate line on the Annual Report filed with the State Insurance Departments. This would permit examination of aggregate product liability experience of insurers. Additionally, it would appear to be in both the insurers' and the public interest for insurers to provide information which would enable regulators and others to get a more accurate assessment of the insurers' complete financial situation regarding claims and reserves. Accounting procedures established to evaluate solvency are clearly appropriate for that purpose but insurers should also report on a basis that assumes continuation and takes into account as assets such items as the unearned premium reserve. In a line such as product liability, where there is a relatively long period between the occurrence and ultimate closing of some large claims, direct account of the investment income attributable to the established reserves should be made.

Further Studies Should Be Undertaken

Studies should be conducted on reserving practices, including evaluation of methods of estimating reserves; the disposition of the excess of reserves that are not ultimately paid to claimants and related claims expenditures; and the appropriateness of existing loss development and trend factors.

The adoption of the measures suggested above should lend greater certainty to the product liability insurance situation and assist insurers in more adequately meeting the system objectives. Additionally, the adoption of such measures will permit evaluation of whether the uncertainty and lack of data have themselves led to premium increases which may ultimately be determined not to have been necessary or whether the actual claims experience fully justifies them and perhaps even requires further increases.

In conclusion the Task Force believes that steps outlined herein will help address one of the causes of the product liability problem. They might also reduce pressure for extensive government involvement in the area of product liability insurance regulation.

NOTES TO PRODUCT LIABILITY INSURANCE SYSTEM

¹See Chapter VI and VII.

²The ability to underwrite additional risks.

³Throughout this chapter the insurance contract agreed to by the insured and the insuring company is referred to as the primary policy and the insurer is referred to as the primary insurer. This terminology is used to differentiate between the company dealing directly with the insured (the primary insurer) and administering claims under the policy provided to the insured (the primary policy) and those insurers with whom the primary insurer may have made indemnification or other agreements which relate to the primary policy but to which the insured is not a party.

⁴Damages covered include both bodily injury (BI) and property damage (PD).

⁵Some sources refer to this type of coverage as "discovery" basis policies. See Zarpos v. Morrow, 215 F. Supp. 887 (D.N.J., 1963).

⁶Potential claims which insurers assume will be made some time in the future.

⁷The consideration of whether or not the insurer will accept the risk at all involves some technical factors which are beyond the scope of this discussion. Such factors include where the proposed risks fits within the company's philosophy of risk retention; whether the risk is excluded from the reinsurance treaty; whether, even if not excluded, it might tend to jeopardize the treaty or the sliding scale ceding commission or other profit sharing arrangements under it, and whether, and how much, facultative reinsurance may be obtained. For definition and discussion of facultative reinsurance see Section G of this Chapter.

⁸As used throughout this discussion the word "rate" refers to the "amount charged per unit of exposure," and, unless otherwise noted, the use of the word "rate" implies neither derivation from a statistical valid experience data base nor regulatory approval.

⁹The factual information on the rating methods is based on information from the ISO publication, Product Liability Insurance Background Report, Dec. 1976.

¹⁰Monoline coverage is that which is written specifically for one type of liability; e.g. product liability; as opposed to multiline policies which combine different types of coverages.

¹¹Composite rating, as well as Loss rating and Large (a) Rating are used for coverage for very large firms. The basic policies are either monoline or multiline but the rating methods differ from those of smaller firms.

¹²ISO, Product Liability Insurance Background Report, Dec. 1976 p. 7.

¹³Questions propounded to insurance companies on June 2, 1977, by the Honorable John LaFalce, Chairman of the Subcommittee on Capital Investment and Business Opportunities of the U.S. House of Representatives Committee on Small Business. Company responses were from: Aetna Life & Casualty, Crum & Forster Insurance Companies, the Hartford Insurance Group, the St. Paul Fire and Marine Insurance Company, the Continental Insurance Companies, and Liberty Mutual.

¹⁴Ibid.

¹⁵See Section E, p. 12.

¹⁶Based on "Product Liability Insurance - Background Report on Statistical and Rating Procedures," ISO, December, 1976.

¹⁷See pp. VI-28.

¹⁸MAPI - Dimensions of the Product Liability Problem, April 25, 1977.

¹⁹Insurance Study, p. 2-21.

²⁰Insurance Study, p. ES-5.

²¹Prepared by Howard B. Clark, Federal Insurance Administration.

²²See Table V-3.

²³See ISO's Product Liability Insurance Report, December 1976.

²⁴Memo from Howard Clark to Task Force dated 8/23/77.

²⁵ISO, Preliminary Report on Closed Claim Survey, December 1976.

²⁶See pp. 31.

²⁷Testimony, op. cit.

²⁸These companies are: Aetna Life and Casualty Company of Hartford; The Travelers Indemnity Company, Hartford, Connecticut; Hartford Accident and Indemnity Company of Hartford; The Continental Insurance Company of the State of New York; United States Fire Insurance Company of New York; Liberty Mutual

Insurance Company of Boston, Mass.; Continental Casualty Company, Chicago, Ill. (CNA); United States Fidelity and Guaranty Company; St. Paul Fire and Marine Insurance Company, St. Paul, Minn.; Royal Globe Insurance Company of Chicago.

²⁹Testimony of Liberty Mutual Insurance Companies before the Subcommittee on Capital, Investment and Business Opportunities of the Committee on Small Business on June 28, 1977.

³⁰As noted by the Insurance Study (p. 2-4) "Individual insurance company reports to stockholders and to A. M. Best's Reports calculate expense components as a percentage of written premium. Insurance Expense Exhibits filed with State Insurance Departments calculate all expense components as a percentage of earned premiums."

³¹Standard & Poor's Industry Surveys, Volume 1, March 10, 1977, p. I-24.

³²Ibid.

³³Ibid. p. I-25.

³⁴Ibid. pp. I-25-26.

³⁵Insurance Study, p. 3-16.

³⁶See Insurance Study, p. 3-18.

³⁷Insurance Study p. 3-16.

³⁸Minn. Rev. Code, Ch. 72A.061, as amended 1977.

³⁹House bill 2410.

Table V-1.--Number of Companies with
Per Occurrence Deductibles¹

<u>Deductibles</u>	Small Companies	Large Companies
	(\$2.5 million sales or less)	(Over \$2.5 million sales)
0 - \$ 1,000	38	18
\$ 1,000 - 9,999	2	5
10,000 - 25,000	-	3
Over \$25,000	-	<u>29</u>
Total with deductibles	40	55

¹Out of 3,000 underwriting files reviewed.

Source: Insurance Study.

Table V-2.--Average Deductible or Self-Insurance Retention Levels, by Sales Category 1971-76
(thousands of dollars)

	Year					
	1971	1972	1973	1974	1975	1976
	Number ¹	Number ¹	Number ¹	Number ¹	Number ¹	Number ¹
	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)	(\$000)
\$100 million and over						
Bodily injury	38.4	11	38.4	11	35.3	12
Combined PD & BI	54.3	27	214.4	31	206.2	34
					71.2	14
					208.6	36
					85.1	15
					207.4	40
					158.4	18
					334.5	43
\$2.5 to \$100 million						
Bodily injury	5.7	5	7.1	8	16.8	7
Combined PD & BI	57.3	10	45.9	13	47.8	13
					12.8	10
					44.4	14
					12.6	11
					33.6	19
					12.0	15
					120.4	23
Less than \$2.5 million						
Bodily injury	0.1	1	0.1	1	0.3	4
Combined PD & BI	13.2	4	13.2	4	10.7	5
					0.2	3
					8.9	6
					0.4	6
					8.9	6
					84.3 ²	9
					7.4	8
All size categories						
Bodily injury	26.5	17	23.9	20	20.5	23
Combined PD & BI	51.0	41	152.0	48	147.8	52
					41.7	27
					146.2	56
					44.3	32
					138.3	65
					90.2	42
					232.6	74

¹ Number indicates the number of firms responding.

² Increase is due to one firm which purchased a \$750,000 deductible policy. If this firm is removed from the calculation, the average rate falls to under \$1,000.

Source: Industry Study, Table IV-15 at IV-37.

Table V-3.--Product Liability
Rating Methods¹

<u>Rating Method</u>	Percent of Product Liability Total <u>Premium</u>	Product Liability Experience Reported <u>To ISO</u>
Manual rated (monoline policies)	10 - 15%	Complete detailed experience reported
Small (a) rated	30 - 35%	Summary experience only is reported ²
Package policies	30%	None ³
Composite rated, loss rated and large (a) rated	20 - 30%	None broken out ⁴

¹Source: Based of information provided in ISO's Product Liability Insurance Background Report, December, 1976

²In 1974 ISO began collecting exposure data for (a) rated risks in classification detail. Future rate revisions will reflect these data which are essential for ratemaking.

³ISO is planning to collect these data in the future in the same detail as is done for manual rated.

⁴Only summary data for all general liability experience, including products liability, are reported.

Table V-4.-- Basic Monoline Rate Increases for Product Liability Insurance
December 1976 Over August 1975

Product Classes - Manufacturing	Rate Type	Aug. 75 Combined ¹ PI & PD Rate Per \$1,000 Sales	Dec. 76 Combined ¹ BI & PD Rate Per \$1,000 Sales	Percent Increase In Rate
<u>Rate increases of 600% or more</u>				
Tanks metal (not pressurized)	(a)	\$.45	\$ 5.00	1,011%
Metal goods manufacturer	(a)	10-1.30	.75-15.00	650-1,054%
Machinery	(a)	2.60	20.00	669%
Construction, mining & materials handling equipment	(a)	1.70	12.50	635%
Trailers, mobile homes	(a)	1.50	5.50-16.00	267-967%
Campers, camper bodies	(a)	1.50	10.50	600%
<u>Rate increases of 400 to 600%</u>				
Industrial machinery equipment	(a)	\$ 2.60	\$ 7.50-27.50	189-958%
Metal working machinery and equipment	(a)	3.00	10.50-27.50	250-817%
Motor vehicles, personal type	(a)	1.75	5.50-16.50	214-843%
Wire rope or cable	(a)	.95	5.50	479%
Trucks, bodies	(a)	1.70	9.50	459%
Toys	(a)	.83	4.20	406%
Power equipment - household type	(a)	2.70	5.50-21.50	104-696%
<u>Rate increases of 300 to 400%</u>				
Tools, hand type (powered)	(a)	\$ 2.70	\$ 5.25-21.50	94-696%
Trailers	(a)	1.70	4.50-11.00	165-547%
Playground & exercise equipment	(a)	1.70	7.65	350%
Values	(a)	1.20	5.00	317%
Auto bodies excluding trailers	(a)	1.05	4.30	310%
Tools, hand type (not powered)	(a)	.65	2.65	308%
Food-processing or packing equip.	(a)	4.00	11.00-21.00	175-425%
<u>Rate increases of 200 to 300%</u>				
Food - animal use (manufacturing/packer)	(a)	\$.28	\$ 1.10	293%
Bottles and jars	Manual	1.37	5.27	285%
Electrical generating machinery	(a)	.95	3.35	253%
Cases in steel cylinders	(a)	.65	2.25	246%
Electric appliances equipment - household type	Manual	.32	1.10	244%
Pumps	(a)	.95	3.25	242%
Railroad equipment - mobile type	(a)	.90	3.00	233%
Products (not otherwise classified)	(a)	.85	2.80	229%
Cutlery (not powered or flatware)	Manual	.50	1.61	222%
Swimming pools or accessories	(a)	1.30	4.15	219%
Computers	(a)	.95	3.00	216%
Metal goods stamping (not signs)	(a)	10-1.30	.35-3.50	250-169%
Auto, bus, truck parts	(a)	2.35	7.25	209%
Instruments - analytical, testing & recording	(a)	1.30	4.00	208%
Instruments - control	(a)	1.30	4.00	208%
Ammunition including component parts	(a)	.85	2.60	206%
Engines - turbines not aircraft	Manual	.90	2.75	206%
Medical, dental, surgical diagnostic treatment machines	(a)	3.30	10.05	205%
Ammunition	(a)	1.70	5.16	204%
Instruments	(a)	.25	.75	200%
Furniture & equipment (infant)	(a)	.85	3.00	200%
<u>Rate increases of 150 to 200%</u>				
Detergents - household use	Manual	\$.66	\$ 1.97	199%
Signs, metal	Manual	.60	1.75	192%
Signs (not otherwise classified)	Manual	.60	1.75	192%
Seedsmen, including misdelivery & germination failure	Manual	1.07	3.10	190%
Sporting goods	Manual	.90	2.60	189%
Plastic & rubber goods	(a)	.35	1.00	186%
Seedsmen, including misdelivery, excluding germination failure	(a)	.57	1.60	181%
Tools, dies, jigs and fixtures	Manual	.49	1.37	180%
Fireproofing equipment	(a)	.90	2.50	178%
Bolts, nuts & screws	Manual	.49	1.31	167%
Cans, metal (pressurized)	Manual	1.17	3.07	162%
Bus bodies	(a)	2.10	5.50	162%

Table V-4.--(Continued)

<u>Product Classes - Manufacturing</u>	<u>Rate Type</u>	<u>Aug. 75 Combined¹</u>		<u>Dec. 76 Combined¹</u>		<u>Percent Increase In Rate</u>
		<u>BI & PD Rate</u>	<u>Per \$1,000 Sales</u>	<u>BI & PD Rate</u>	<u>Per \$1,000 Sales</u>	
Caskets	Manual		.05		.135	160%
Parachutes	(a)		1.25		3.25	160%
Doors & windows, metal	Manual		.22		.57	159%
Chemicals - household use	(a)		1.85		4.75	157%
Auto, bus, truck brake linings	(a)		1.95		5.00	156%
Boats - inboard, outboard	Manual		1.10		2.75	150%
Boats	(a)		1.10		2.75	150%
<u>Rate increases of 100 to 150%</u>						
Cans, metal (not pressurized)	Manual		\$.55		\$ 1.13	147%
Firearms	Manual		.85		2.10	147%
Firearms - handguns, rifles and shotguns	(a)		1.70		4.15	144%
Hatcheries (poultry)	(a)		1.07		2.60	143%
Plastic & rubber goods - household	(a)		.40		.95	138%
Medical, dental, hospital or surgical equip. (not expendable)	(a)		2.55		6.05	137%
<u>Rate increases of 100 to 150% cont'd.</u>						
Orthopedic, ambulation or prosthetic devices	(a)		\$ 2.55		\$ 6.05	137%
Electrical wire or cable (insulated)	Manual		.65		1.50	131%
Electric wire & cable	(a)		.65		1.50	131%
Seedsmen, excluding misdelivery & germination failure	(a)		.27		.60	122%
Clothing, millinery or other wearing apparel	Manual		.066		.146	121%
Automobile, bus, truck tires	(a)		6.93		15.13	118%
Office and accounting machinery (not computers)	(a)		.35		.75	114%
Meats and poultry (not in containers)	Manual		.099		.209	111%
Automobile accessories	Manual		.55		1.16	111%
Chemicals - herbicides	(a)		1.95		4.00	105%
Abrasive wheels	(a)		2.21		4.50	104%
<u>Product Classes - other than Manufacturing</u>						
<u>Rate increases of 100% or more</u>						
Machinery & equipment, not household type	(a)		\$ 2.60		\$ 7.50-27.50	189-958%
Structural iron & steel, excluding erection	(a)		.65		2.50	285%
Tobacco products	Manual		.031		.101	226%
Not food or drink (not otherwise classified)	(a)		.20		.65	225%
Gas, oil or other fuel	Manual		.96		2.60	171%
Soft drinks, carbonated in cans (bottler)	Manual		.181		.441	144%
Electric (retailers)	Manual		.38		.89	134%
Refrigeration equipment	Manual		.40		.88	120%
Boat yards & marinas	(a)		1.45		3.00	107%

¹ Source: ISO

Table V-5.--Increased Limits Factors
For Bodily Injury and Property Damage

Bodily Injury Limits¹

Aggregate Limit (Limit are in thousands)	Limits per Occurrence (Limits are in thousands)					
	<u>25</u>	<u>50</u>	<u>100</u>	<u>200</u>	<u>250</u>	<u>300</u>
50	1.00	1.29 (1.33)				
100			1.85 (1.95)			
200				2.38 (2.62)		
250					2.60 (2.90)	
300						2.76 (3.12)

¹There are two sets of increased limits factors for bodily injury which correspond to the two tables (Tables A & B) product liability monoline rates published by ISO. The majority of product classes are contained in Table B. The increased limits factors for Table A product classes are shown above in parentheses, and those for Table B product classes are shown without parentheses.

Source: ISO Rate Manual, Edition November 1976.

Property Damage Limits

Aggregate Limit (Limits are in thousands)	Limit per Occurrence (Limits are in thousands)							
	5	7.5	10	15	20	25	35	50
25	1.00	1.30	1.54	1.72	1.94	1.96		
35	1.06	1.42	1.66	1.84	1.96	2.08	2.20	
50	1.12	1.48	1.72	1.96	2.08	2.20	2.38	2.56
75	1.18	1.54	1.78	2.03	2.20	2.32	2.50	2.74
100	1.24	1.60	1.84	2.14	2.26	2.38	2.56	2.80

Table V-6.--Product Liability Classes
With Monoline Premiums
of \$10 or More Per \$1,000 of Sales For Coverage of
\$250,000 BI, \$50,000 PD, Per Occurrence

<u>Product Class</u>	<u>Basic Limits Rates¹</u>		<u>Combined Rates For \$250,000 BI, \$50,000 PD, Per Occurrence²</u>
	<u>BI Rate</u>	<u>PD Rate</u>	
Fuels, Gasoline, Oil or Other			
Liquid Fuel	2.60s	3.40	17.06
<u>Manufacturing</u>			
Abrasive Wheels	4.00	.50	11.80@ ¹
Ammunition-incl. component pts.			
Hand Guns, Rifles, Shotguns	5.00	.16	13.45@
Automobiles, Buses or	/ .75 to	/ .05 to	/ 2.32
Trucks	/10.00	.50	/30.40@
Auto Bodies-excl. trls.	4.00	.30	12.44@
Auto etc. Brake Lining	4.50	.50	14.45@
Auto Bus Trk. Pts.	6.00	1.25	20.90@
Automotive Mfgr.	/ 4.00 to	/ .25 to	/11.10
	/10.00	/ .75	/28.10@
Water Spring in Bottles			
Not Sparkling or Carbonated			
(Bottler)	6.80	.29	18.49
Water Sparkling	6.60	.18	17.66
Bus Bodies	5.00	.50	14.40@
Campers and Camper Bodies -			
not Trailers	10.00	.50	27.40@
Chemicals-Herbicides	2.50	1.50	10.70@
Chemicals--H.H. Use	4.50	.25	12.40@
Construction Mining and			
Material Handling Equipment	10.00	2.50	33.00@
Contact Lenses	7.50	.11	19.81
Electrical Equipment-for Direct			
and Indirect Application to			
the Body	3.80	.25	10.58
Farm Machinery & Equip.	/ 3.00 to		
	/15.00	.50	/40.40@
Fire Extinguishers	2.50	1.50	10.70@
Fire Arms Handguns, Rifles			
& Shotguns	4.00	.15	10.82@
Food Processing or Packaging	/10.00 to		/28.80
Equip.	/20.00	1.00	54.80@
Industrial Machinery &	/ 5.00 to	/2.50 to	/20.00
Equip.	/20.00	/7.50	/73.00@
Instruments-Analytical Calibrating,			
Testing or Recording	2.50	1.50	10.70@
Instruments-Control	2.50	1.50	10.70@
Ladders-Incl. Chair Step or			
Stool-Wood	90.50	.08	235.52
Ladders-Inc. Chair Step or			
Stool-	49.50	.08	128.92
Machinery	15.00	5.00	53.00@
Medical, Dental Hospitals or			
Surgical Equip. Non-Expendable	6.00	.05	15.74@

<u>Product Class</u>	<u>Basic Limits Rates</u> ¹		Combined Rates For \$250,000 BI, \$50,000 PD, Per <u>Occurrence</u> ²
	<u>BI Rate</u>	<u>PD Rate</u>	
Medical, Dental, Hospital or Surgical Diagnostic or Treatment Machines	10.00	.05	26.14@
Metal Goods	/ .50	/ .25	/ 2.00
	/10.00	/5.00	/40.00@
Metal Goods Stamping not Signs	/ .25	/ .10	/ .93
	/ 2.50	/1.00	/ 9.30@
Metal Working Machinery and Equip.	/10.00	/ .50	/27.40
	/25.00	/2.50	/72.00@
Motor Vehicles Personal	/ 5.00	/ .50	/14.40
Type	/15.00	/1.50	/40.20@
Orthopedic, Ambulation & Prosthetic Devices	6.00	.05	15.74@
Playground or Exercise Equipment	7.50	.15	19.92@
Power Equipment			
H.H. Type-Outdoor & Workshop	20.00	1.50	56.20@
Swimming Pools or Accessories	4.00	.15	10.82@
Tanks-Metal-not Pressurized	4.00	1.00	13.20@
Tanks-Metal	/ .50	/ .25	/ 2.00
Pressurized	/10.00	/5.00	/40.00@
Tools-Hand Type	/ 5.00	/ .25	/13.70
Powered	/20.00	/1.50	/56.20@
Toys	4.00	.20	10.96@
Trailers	/ 4.00	/ .50	/11.80
	/10.00	/1.50	/30.20@
Trailers -	/ 5.00	/ .25	/13.70
Mobile Homes	/15.00	/1.00	/41.80@
Truck Bodies	7.50	2.00	25.10@
Valves	2.50	2.50	13.50@
Wire Rope or Cable	5.00	.50	14.40@
<u>Service</u>			
Beauty Parlors	2.50	2.50	13.50@
<u>Stores or Dealers-Retail</u>			
Machinery & Equipment	/ 5.00	/2.50	/20.00
not H.H. Type	/20.00	/7.50	/73.00@

¹/=A range of (a) rates for a specific product class.

²@=(a) rates

Table V-7.--Effect of ISO Revisions
On Product Liability Premium Rates

	<u>Overall Percentage Increase</u>
<u>Basic Limits</u>	
Bodily Injury (BI)	+83.5
Property Damage (PD)	+15.0
<u>Increased Limits Factors</u> ² (applied to manual and (a) rates)	
Table B ("Standard" increased limits factor)	+200.3
Table A (Increased limits factors higher than "standard" applied to 90 of the 418 product classifications)	+74.5

¹ Composite of ISO estimates of overall countrywide impact of rate revisions of 1975 and 1976 by type of increase. Basic limits rates are for BI limits of \$25,000 per occurrence and \$50,000 aggregate. PD limits are for \$5,000 per occurrence, \$25,000 for all damages.

² Excludes six states that use exception tables for bodily injury increased limits factors. Increased limits factors are applied against the basic limit rate to raise the limit of liability to the desired level. An individual factor is used to derive the applicable rate for each level of increased liability desired.

Source: Product Liability: Insurance Study, McKinsey and Company, Inc., January 1977.

Table V-8.--Table Increases in (a) Rated Products

Product Classification	Number of Companies Having Data Available	Low Range	Percent of Increase Avg. 1974-1975 Versus 1975-1976	High Range
Industrial Machinery	27	<0%	244%	350-400%
Industrial Grinding and Abrasive Products	1	-	Insufficient data	-
Ferrous and Nonferrous Metal Castings	13	0-50	19	100-150
Industrial Chemicals: Organic and Inorganic	4	0-50	78	100-150
Aircraft Components	-	-	Insufficient data	-
Automobile Components	3	200-250	568	800-850
Medical Devices	2	<0	35	0-50
Pharmaceuticals	2	150-200	219	250-300

Source: Product Liability; Insurance Study, McKinsey and Company, Inc. 1/77.

Table V-9.--Estimated Average Product Liability Cost Per \$1,000
in Total Sales Under Comprehensive General Liability Plans 1971-76

Year	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million & over		All Firms	
	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹
1971	1.10	13	0.93	38	0.54	59	0.74	110
1972	1.14	17	0.91	51	0.60	67	0.79	135
1973	1.00	22	1.06	61	0.59	70	0.84	153
1974	1.63	28	1.00	66	0.55	75	0.91	169
1975	2.58	36	1.47	68	0.78	77	1.40	181
1976	5.32	38	3.23	64	1.09	71	2.81	173

¹Number indicates the number of firms responding.

Source: Product Liability, Industry Telephone Survey, Gordon Associates Inc.,
December 1976.

Table V-10.--Comprehensive General Liability Coverage Average
Cost per \$1,000 in Sales, by Product and Size Categories 1976

Product Category	Less than \$2.5 million		\$2.5 to \$100 million		\$100 million and over		All Firms	
	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹	Cost per Thousand	Number ¹
Industrial products								
Industrial machinery	3.38	7	2.85	10	1.22	15	2.20	32
Metal castings	2.80	5	4.78	7	1.14	13	2.49	25
Grinding wheels	8.92	8	4.71	9	1.45	3	5.90	20
Industrial chemicals	4.60	7	3.15	14	0.61	12	2.53	33
Consumer products								
Power mowers	8.82	2	4.42	12	2.23	5	4.31	19
Automotive components	6.50	7	2.60	9	1.26	13	2.94	29
Pharmaceuticals	4.87	4	6.10	6	1.72	9	3.76	19
Medical services	15.79	6	3.88	6	1.49	12	5.66	24
Aircraft com- ponents	15.05	3	3.03	2	0.74	7	4.70	12
All product cate- gories	7.42	49	3.88	75	1.24	89	3.59	213

Source: Product Liability Industry Telephone Survey, Gordon Associates, Inc.,
December 1976, Tables IV-10, IV-12, IV-15, IV-21, IV-26 and IV-28.

Table V-11.--Comparative Analysis of Leading Indicators
for Small, Medium and Large firms
Industry Telephone Survey

	Under \$2.5 mil.	\$2.5-\$100 mil.	Over \$100 mil.	Total
<u>CGL Cost/\$1,000 Sales</u>				
1971	\$2.87	\$1.25	\$0.67	\$1.17
1975	4.86	2.36	0.89	2.32
1976	7.42	3.88	1.24	3.59
<u>Estimated Product Liability Insurance Cost/\$1,000 Sales</u>				
1971	\$1.10	\$.93	\$0.54	\$0.74
1975	2.58	1.47	0.78	1.40
1976	5.32	3.23	1.09	2.81
<u>Percent Change</u>				
1971-1976	383%	247%	102%	280%
1975-1976	106%	120%	39%	101%
<u>Average Deductible or Risk Retention Level (\$000)</u>				
1971	13.2	57.3	54.3	51.0
1975	8.9	33.6	207.4	138.3
1976	7.4	120.4	334.5	232.6
<u>Percent of Firms Reporting Claims</u>				
1971-1976	18	50	96	56
<u>Average No. of Pending Claims Per Firm</u>				
1971	.01	.58	13.79	3.4
1975	.06	3.18	46.82	14.0
1976	.08	3.46	65.01	18.9
<u>Percent Change</u>				
1971-1976	700%	496%	371%	456%
1975-1976	33%	9%	39%	35%
<u>Average No. of New Claims Per Firm</u>				
1971	.02	.9	16.1	4.3
1973	.06	1.2	39.0	11.1
1975	.08	1.6	38.2	11.4
1976	.07	1.3	33.4	9.9
<u>Average Amount of Damages Sought Per Firm</u>				
1971	\$250	\$102,100	\$1,936,700	\$434,000
1975	3,400	1,642,900	6,142,300	1,976,700
1976	2,100	1,394,300	13,892,400	3,526,900
<u>Average Settlement Amounts Per Firm</u>				
1971	\$900	\$1,400	45,400	\$12,100
1973	600	3,200	96,200	28,200
1975	100	6,100	70,200	22,200
1976	100	7,500	92,100	27,800

Source: Product Liability Industry Telephone Survey, Gordon Associates, Inc.,
December 1976, Tables IV-10, IV-12, IV-15, IV-21, IV-26 and IV-28.

Table V-12.--Estimated Allocation of Product
Liability Premium Dollar

Cost Category	Expected Ultimate Distribution	First Policy Year	Calendar Year	
			Block-of-Business	Impact on Operating Statement
Payments and Reserves	51%	51%	51%	
Paid Losses	51%	5%		
Case Reserves	--	32%		29% ¹
*IBNR Reserves	--	14%		15% ²
				7%
Loss Adjustment Expenses for:	20%	20%	20%	20%
Paid Losses	20%	2%		11% ¹
Case Reserves	--	12.5%		6% ²
*IBNR Reserves	--	5.5%		3%
Commissions	13%	13%	13%	13%
Other Underwriting Expenses	11%	11%	11%	11%
Anticipated Profit	5%	5%	5%	5%

*IBNR: Incurred-But-Not-Reported Reserves

¹ Represents changes in case reserves

² Represents changes in IBNR reserves

Source: McKinsey & Company, Inc., July 1977.

Table V-13. --Estimated Allocation of Total
1976 Product Liability Premiums

TABLE I
(In billions)

Premiums	\$2.080
Underwriting expense and profit	.832
Loss and loss adjustment expense	1.250
Loss adjustment expense	.416
Defense legal costs	.354
Claimants' legal costs	.250
Combined legal costs	.604
Combined legal costs and other adjustment expense	.666
Claimants' compensation	.584

TABLE II
(In billions)

Premiums	\$2.080
Underwriting expense and profit	.624
Loss and loss adjustment expense	1.456
Loss adjustment expense	.416
Defense legal costs	.354
Claimants legal costs	.312
Combined legal costs	.666
Combined legal costs and other adjustment expense	.728
Claimants' compensation	.728

Source: Federal Insurance Administration, August, 1977.

Table V-14.--Product Liability Insurance Underwriting Experience¹
Bodily Injury and Property Damage Combined

Policy Year Ending	Total Limits		Total Limits ²		Total Limits Loss	
	Collected	Premium	Incurred	Losses	& Loss	Adjs. Ratio
12/31/69	\$ 85,376,045		\$ 77,254,172			.905
12/31/70	108,263,708		92,023,646			.850
12/31/71	117,646,080		112,417,337			.956
12/31/72	161,735,459		122,442,824			.757
12/31/73	197,667,836		218,893,965			1.107
12/31/74	205,302,734		302,716,265			1.474

¹ Represents manual and small (a) rated classes for all companies reporting to ISO.

² Total ultimate losses including estimates for loss development and loss adjustment expense.

³ Preliminary data based on first report for the policy year.

Source: Insurance Services Office, May 1977.

Table V-15.--Product Liability Insurance Incurred Losses¹
Bodily Injury and Property Damage Combined

Policy Year	Reported ²	Incurred But ³	Total ⁴
<u>Ending</u>	<u>Losses</u>	<u>Not Reported Losses</u>	<u>Incurred Losses</u>

Basic Limit Losses

12/31/69	\$ 39,479,760	\$ 10,735,010	\$ 50,214,770
12/31/70	57,572,016	1,178,798	58,750,814
12/31/71	61,212,153	2,622,853	63,835,006
12/31/72	69,575,160	9,248,235	78,823,395
12/31/73 ⁵	105,499,455	35,688,490	141,187,945
12/31/74 ⁵	88,799,192	61,153,814	149,953,006

Excess Limit Losses

12/31/69	19,424,715	7,614,687	27,039,402
12/31/70	32,582,433	690,399	33,272,832
12/31/71	46,498,334	2,083,997	48,582,331
12/31/72	40,253,234	3,366,195	43,619,429
12/31/73 ⁵	61,508,039	16,197,981	77,706,020
12/31/74 ⁵	69,300,391	83,462,868	152,763,259

¹Represents manual and small (a) rated classes for all companies reporting to ISO.

²Latest reported losses including all adjustment expense.

³Estimated on the basis of current loss development estimating procedures.

⁴Total ultimate losses including estimated incurred-but-not-reported losses and all loss adjustment expense.

⁵Preliminary data based on first report for the policy year.

Source: Insurance Services Office, May 1977.

Table V-16.--Product Liability Insurance Incurred Losses¹
Bodily Injury

Policy Year <u>Ending</u>	Reported ² <u>Losses</u>	Incurred But ³ <u>Not Reported Losses</u>	Total ⁴ <u>Incurred Losses</u>
------------------------------	--	---	--

Basic Limit Losses

12/31/69	\$ 28,766,682	\$ 11,336,631	\$ 40,104,414
12/31/70	45,110,359	1,066,647	46,177,006
12/31/71	48,655,707	2,396,833	51,052,540
12/31/72	54,125,276	8,692,042	62,817,318
12/31/73 ⁵	86,570,003	34,969,171	121,539,174
12/31/74 ⁵	70,881,071	57,838,959	128,720,030

Excess Limit Losses

12/31/69	13,711,981	7,294,775	21,006,756
12/31/70	25,570,271	690,399	26,260,670
12/31/71	38,592,487	2,083,997	40,676,484
12/31/72	30,501,737	3,385,692	33,887,429
12/31/73 ⁵	48,157,106	15,410,275	63,567,381
12/31/74 ⁵	53,371,793	78,349,789	131,721,582

¹Represents manual and small (a) rated classes for all companies reporting to ISO.

²Latest reported losses including all adjustment expense.

³Estimated on the basis of current loss development estimating procedures.

⁴Total ultimate losses including estimated incurred-but-not-reported losses and all loss adjustment expense.

⁵Preliminary data based on first report for the policy year.

Source: Insurance Services Office, May 1977.

Table V-17.--Product Liability Insurance Incurred Losses¹
Property Damage

Policy Year	Reported ²	Incurred But ³	Total ⁴
<u>Ending</u>	<u>Losses</u>	<u>Not Reported Losses</u>	<u>Incurred Losses</u>

Basic Limit Losses

12/31/69	\$ 10,713,078	\$ (601,621)	\$ 10,111,457
12/31/70	12,461,657	112,151	12,573,808
12/31/71	12,556,446	226,020	12,782,466
12/31/72	15,449,884	556,193	16,006,077
12/31/73 ⁵	18,929,452	719,319	19,648,771
12/31/74 ⁵	17,918,121	3,314,855	21,232,976

Excess Limit Losses

12/31/69	5,712,734	319,912	6,032,646
12/31/70	7,012,162	-0-	7,012,162
12/31/71	7,905,847	-0-	7,905,847
12/31/72	9,751,497	(19,497)	9,732,000
12/31/73 ⁵	13,350,933	787,706	14,138,639
12/31/74 ⁵	15,928,598	5,113,079	21,041,677

¹Represents manual and small (a) rated classes for all companies reporting to ISO.

²Latest reported losses including all adjustment expense.

³Estimated on the basis of current loss development estimating procedures.

⁴Total ultimate losses including estimated incurred-but-not-reported losses and all loss adjustment expense.

⁵Preliminary data based on first report for the policy year.

Source: Insurance Services Office, May 1977.

Table V-18.--Products Generating Most Payment Dollars
Bodily Injury
 (Untrended and Trended)
 (Trended Values are in Parentheses)

<u>Product Code/Name</u>	<u>% of Total Payment</u>	<u>Average of Non-Zero Payments</u>	<u>Number With Payment</u>
064 Electrical Appliances or Equip. (Installation, service or repair)	4.5 (6.7)	\$ 52,014 (236,332)	25
212 Miscellaneous Machines	6.3 (6.4)	42,522 (129,577)	43
041 Clothing (synthetic) (not shoes, boots or slippers)	5.5 (6.2)	176,181 (605,023)	9
172 Chemicals	1.9 (5.6)	22,394 (205,827)	24
904 Tractors, Trucks, Mobile Homes, Campers	5.6 (5.0)	53,962 (145,527)	30
165 Other Metal Goods	4.7 (5.4)	97,319 (284,944)	14
933 Asbestos	2.2 (3.9)	81,128 (427,849)	8
198 Surgical or Hospital Equip. & Supplies	3.7 (3.8)	30,791 (94,111)	35
215 Food Processing Equipment	1.7 (3.1)	61,465 (343,918)	8
218 Fork Lift	3.6 (2.9)	80,905 (197,800)	13
142 Motor Vehicle Accessories	2.8 (2.7)	19,378 (57,144)	42
921 Containers - Boxes, Packages, etc.	2.7 (2.2)	52,018 (126,686)	15
906 Cloth, Fabric, Thread, etc.	2.2 (2.1)	103,800 (306,250)	6
101 Lights - Bulbs	0.6 (2.1)	27,167 (286,971)	6
117 Glassware, Porcelain, Pottery (Bottles)	1.3 (1.7)	6,205 (25,281)	59
919 Laundry Centrifugal Extractor	0.7 (1.7)	195,000 (1,454,700)	1
166 Firearms (Parts Included)	2.2 (1.4)	57,605 (108,258)	11
138 Automobile	0.8 (1.3)	8,820 (43,632)	27
161 Tools (Powered)	1.4 (1.3)	16,404 (45,928)	
042 Clothing (non-synthetic) (not shoes, boots or slippers)	1.3 (1.2)	31,838 (89,512)	12
902 Intrauterine Device	1.9 (1.2)	9,433 (18,688)	58
214 Agriculture Equip., Excluding Food Processing	1.9 (1.1)	41,368 (76,144)	
080 Air Conditioning Installation, Servicing or Repairs	1.2 (1.0)	175,250 (424,548)	2
111 Chairs	1.5 (1.0)	14,482 (30,363)	29
139 Snowmobile	1.0 (1.0)	71,250 (217,485)	4
152 Bolts, Nuts & Screws, Nails	1.2 (1.0)	88,125 (216,498)	4
192 Miscellaneous Electrical Apparatus	1.0 (1.0)	48,333 (141,848)	6

Source: Insurance Services Office, 1976 Product Liability
 Closed Claim Survey, Preliminary Analysis of Survey Results,
 December 1976.

Table V-19. --Products Generating Most Payment Dollars
Property Damage
(Untrended and Trended)
(Trended Values are in Parentheses)

<u>Product Code/Name</u>	<u>% of Total Payment</u>	<u>Average of Non-Zero Payments</u>	<u>Number With Payment</u>
142 Motor Vehicle Accessories	16.5 (22.3)	\$ 26,359 (68,853)	49
215 Food Processing Equipment	7.0 (11.0)	22,933 (69,149)	24
069 Roofing	5.1 (6.3)	12,891 (30,532)	31
026 Plumbing Fixtures & Fittings	2.8 (4.2)	9,661 (27,736)	23
217 Petroleum, Chemical and Drug Products (Industrial)	5.0 (4.0)	8,570 (13,323)	46
214 Agricultural Equipment Excluding Food Processing	4.3 (3.7)	33,574 (55,329)	10
155 Paint or Varnish or Paint Remover	3.8 (2.9)	13,597 (20,042)	22
059 Boiler Installation, Servicing or Repair	2.0 (2.8)	8,262 (22,551)	19
088 Systems or Refrigeration Installation, Services and Repair	1.5 (2.7)	23,903 (81,248)	5
165 Other Metal Goods	3.9 (2.4)	38,237 (45,191)	8
077 Sewer Construction, Cleaning or Repair	2.7 (2.1)	17,707 (26,752)	12
050 Construction or Surfacing	2.8 (2.0)	5,556 (7,917)	39
164 Valves	2.0 (1.7)	12,077 (19,833)	13
006 Food (Bagged, Potted, Boxed Except Meat Products) No Canned Foods	1.8 (1.7)	2,878 (5,517)	48
145 Fire Extinguisher	1.8 (1.6)	10,230 (17,133)	14
143 Tires (Non-Belted)	2.2 (1.5)	4,304 (5,760)	
154 Electrical Parts and Accessories	1.4 (1.1)	13,693 (20,514)	
910 Oil Furnace	0.8 (1.0)	4,533 (11,602)	13
958 Business Equipment - Office Furniture	1.2 (1.0)	47,302 (72,202)	2

Source: Insurance Services Offices, 1976 Product Liability
Closed Claim Survey, Preliminary Analysis of Survey Results,
December 1976.

Table V-20. --Product Liability Claims, Time Interval
From Date of Occurrence to Date of First Report
(Untrended)

Time Interval	Bodily Injury		Property Damage	
	Percent of Claims	Percent of Payment	Percent of Claims	Percent of Payment
0 months	35.8	17.1	34.8	18.6
Up to 12 months	87.9	65.6	91.4	80.9
Up to 24 months	95.9	90.9	96.6	91.3
Up to 36 months	98.5	97.7	98.2	95.2
Up to 48 months	99.3	98.7	98.9	96.1
Up to 60 months	99.7	99.8	100.0	96.3
Up to 72 months	99.7	100.0		97.0
Up to 84 months	100.0			100.0
Up to 96 months				
Up to 108 months				
Up to 120 months				
Up to 132 months				
Up to 144 months				
Number of Claims & Payments Reported	3149	\$12.1 Mil.	1754	\$ 3.7 Mil.
Missing Data (No. of Claims & Payments)	1268	4.3 Mil.	560	.7 Mil.

Source: Insurance Services Office, 1976 Product Liability
Closed Claim Survey, Preliminary Analysis of Survey Results,
December 1976.

Table V-21.--Product Liability Claims, Time Interval
From Date of Occurrence to Date of Closing
(Untrended)

Time Interval	Bodily Injury		Property Damage	
	Percent of Claims	Percent of Payment	Percent of Claims	Percent of Payment
0 months	2.6	.1	3.2	0.8
Up to 12 months	59.7	5.8	71.0	28.9
Up to 24 months	72.1	20.0	82.8	44.6
Up to 36 months	80.7	38.3	88.7	53.9
Up to 48 months	87.6	56.8	93.4	63.3
Up to 60 months	93.3	71.9	95.8	69.5
Up to 72 months	96.7	81.7	97.5	74.0
Up to 84 months	98.1	84.9	98.5	76.2
Up to 96 months	98.7	89.9	99.3	92.4
Up to 108 months	99.1	95.2	99.5	99.4
Up to 120 months	99.5	98.8	99.7	99.6
Up to 132 months	99.7	100.0	99.8	99.6
Up to 144 months	100.0		100.0	100.0
Number of Claims & Payments Reported Missing Data (No.	3896	\$13.1 Mil.	2122	\$ 4.1 Mil.
of Claims & Payments)	521	3.4 Mil.	192	.3 Mil..

Source: Insurance Services Office, 1976 Product Liability
Closed Claim Survey, Preliminary Analysis of Survey Results,
December 1976.

Table V-22. --Distribution of Product Liability Claims
by Injured Party's Status in Occurrence
 (Untrended and Trended)
 (Trended Values are in Parentheses)

<u>Status of Injured Party</u>	<u>Percent of</u> <u>Claims with</u> <u>Payment</u>	<u>Percent</u> <u>of Total</u> <u>Payment</u>	<u>Average</u> <u>of Non-</u> <u>Zero</u> <u>Payments</u>
<u>Bodily Injury</u>			
Employee - Injured in		48.6%	\$ 42,011
Course of Employment	11.1%	(48.7)	(128,684)
Purchaser of Product		25.7	3,803
	64.8	(23.6)	(10,677)
Non-Purchaser, Used or		19.4	9,695
Consumer	19.2	(23.2)	(35,535)
Other		6.3	12,215
	4.9	(4.4)	(26,117)
Total Distribution			9,591
	100.0%	100.0%	\$ (29,312)
Number of Claims with Payment	2,937	---	---
<u>Property Damage</u>			
Employee - Injured in			218
Course of Employment	0.4%	0.0%	(282)
Purchaser of Product		58.5	3,508
	80.2	(50.6)	(5,910)
Non-Purchaser, User or		28.3	13,290
Consumer	10.2	(38.8)	(35,463)
Other		13.2	6,961
	9.1	(10.6)	(10,902)
Total Distribution			4,809
	100.0%	100.0%	(9,364)
Number of Claims with Payment	1,583	---	---

Source: Insurance Services Office, 1976 Product Liability Closed Claim Survey, Preliminary Analysis of Survey Results; December 1976.

Table V-23. --Product Liability Closed Claim
Costs by Stage of Legal System
(Untrended)

Stage of Legal System	Payments		Adjustment Expense
	No. with Payment	Avg. of Non-Zero Payments	No. of Claims ALAE
<u>Bodily Injury</u>			
Binding arbitration	2	\$ 2,081	3 \$ 734
No suit filed	56	1,829	88 305
Suit filed but settlement reached before trial	655	14,358	789 4,552
Settlement during trial but before court verdict	36	32,961	40 12,136
Court verdict	39	48,538	165 7,441
TOTAL	788	\$15,978	1,085 \$ 4,916
<u>Property Damage</u>			
Binding arbitration	1	\$ 1,481	1 \$ 435
No suit filed	33	3,908	42 290
Suit filed but settlement reached before trial	169	8,417	205 3,104
Settlement during trial but before court verdict	9	8,095	12 5,198
Court verdict	21	15,530	53 9,167
TOTAL	233	\$ 8,377	313 \$ 3,825

¹ ALAE: Allocated Loss Adjustment Expense

Source: Insurance Services Office, 1976 Product Liability Closed Claim Survey, Preliminary Analysis of Survey Results, December 1976.

BODILY INJURY

*Includes: X monoline, X composite-rated, SMP package
Excludes: monoline, composite-rated, SMP package

V-78

Table V-25.--Annually Adjusted Incurred Loss Estimates,
10 Leading Writers of Miscellaneous Liability Insurance
(Dollar Figures in Millions)

1972 Incurred Losses as Estimated in 1972 and Revised thru 1976
\$803 (1972), 745 (1973), 840 (1974), 873 (1975), 902 (1976)
1973 Incurred Losses as Estimated in 1973 and Revised thru 1976
\$891 (1973), 892 (1974), 979 (1975), 1,039 (1976)
1974 Incurred Losses as Estimated in 1974 and Revised thru 1976
\$974 (1974), 985 (1975), 1,125 (1976)
1975 Incurred Losses as Estimated in 1975 and Revised in 1976
\$1,156 (1975), 1,168 (1976)

Source: Annual reports of companies listed on page V-29.

Table V-26.--Property Casualty Insurance Industry
Estimates of Financial Operating Results

	(Dollar Figures in Billions)					
	1971	1972	1973	1974	1975	1976
Written Premium Volume	\$ 35.7	\$ 39.3	\$ 42.5	\$ 45.1	\$ 49.9	\$ 59.5
Statutory Underwriting Gain/Loss	1.41	1.70	.64	-2.12	-3.63	-1.67
Policyholder Dividends	.591	.716	.786	.750	.540	.571
Overall Underwriting Gain/Loss	.85	1.07	.007	-2.65	-4.25	-2.24
Net Investment Gain	2.5	2.95	3.52	3.49	4.02	4.82
Net Income (Before Tax)	3.2	4.0	3.5	1.2	0.6	2.65
Policyholders' Surplus ^{2 4}	22.7	28.2	27.1	20.9	25.3	30.1
Policyholders' Surplus (Consolidated)	19.5	23.8	21.6	16.3	19.8	23.5
Combined Loss & Expense Ratio	-	96.2%	99.2%	105.4%	107.9%	102.8%
Loss Ratio (After Dividends)	58.3%	57.2%	59.2%	66.4%	69.9%	65.8%
Ratio of Policyholders Surplus (Consolidated) to Written Premiums	1.83	1.65	1.96	2.76	2.53	2.57

¹ Year end figures including miscellaneous accident and health premiums.

² The figures for policyholders surplus (unconsolidated) contain duplication. (Surplus figures reported in Insurance Groups by Subsidiaries may include surplus from parent companies). Hence, policyholder surplus is reported both for consolidated and unconsolidated aggregates.

³ Net investment gain includes both realized capital gains and losses as well as investment income.

⁴ Policyholder surplus is the sum remaining after all liabilities are deducted from assets and includes such sums as paid-in-capital and special voluntary reserves.

Source: Insurance Information Institute based on estimates from the California Insurance Department of 520 insurers and data from A. M. Best Company (1976).

Table V-27.--

Total Property-Casualty and Miscellaneous
Liability Premiums
 (billions)

	<u>Property- Casualty</u>	<u>Miscellaneous Liability</u>
1972	\$38.9	\$2.6
1973	42.0	2.7
1974	44.6	2.9
1975	49.5	3.8
1976	59.5	5.2 (est.)

Source: Best's Insurance News Digest, Property/Casualty Edition, Jan. 3, 1977.

Table V-28.--Property-Casualty and Miscellaneous
Liability Combined Loss Ratios After Dividends

<u>Year</u>	<u>Property- Casualty</u>	<u>Miscellaneous Liability</u>
1972	96.2	114.7
1973	99.2	117.1
1974	105.4	125.9
1975	107.9	116.5
1976	102.8 (est.)	102.5 (est.)

Source: Best's Insurance News Digest, Property/Casualty Edition, Jan. 3, 1977.

Table V-29.--Loss Ratios and Aggregate Premiums, 10 Leading Writers of Miscellaneous Liability Insurance and Total Industry

<u>Year</u>	<u>10 Companies</u>			<u>All Companies</u>	
	<u>Loss Ratio</u>	<u>Incurring Losses (Millions)</u>	<u>Aggregate Premiums (Millions)</u>	<u>Loss Ratio</u>	<u>Aggregate Premiums (Millions)</u>
1972	89.6	\$ 912.5	\$1,018.3	84.4	\$2,555
1973	95.9	1,050.9	1,095.8	86.5	2,701
1974	97.5	1,139.0	1,168.7	96.1	2,936
1975	80.6	1,168.0	1,449.6	89.6	3,824
1976	71.2	1,432.6	2,012.6	78.6	5,205

Source: Data for all companies from Best's Insurance News Digest, Property/Casualty Edition, January 3, 1977 Data for ten leading companies from annual reports of companies listed on page V-29.

Table V-30.--Range in Loss Ratios for 10 Leading Writers of Miscellaneous Liability Insurance

<u>10 Companies</u>			
1972	70.6	to	126.5
1973	79.5	to	137.0
1974	70.3	to	144.0
1975	64.7	to	115.0
1976	63.2	to	87.9

Source: Annual reports of companies listed on page F-1.

Table V-31.--Surplus Line Premiums Reported By
Major State Insurance Departments

<u>Top 10 States (1975)</u>	<u>Premiums (\$ million)</u>			
	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
California	38.4	41.1	54.0	78.1
New York	50.6	44.3	43.6	72.2
Texas	30.9	35.9	48.5	66.9
Louisiana	44.1	43.2	44.9	60.1
Florida	15.3	18.4	20.8	34.5
Pennsylvania	12.2	10.4	16.4	29.4
Illinois	21.3	25.9	22.8	27.9
New Jersey	18.1	19.7	18.1	24.8
Michigan	N.A.	N.A.	N.A.	12.6
Georgia	5.9	6.9	8.8	15.5
All other states	79.3	97.7	114.7	290.8
Total	323.3	348.6	405.4	612.8
Percent increase	<u>72-73</u>	<u>73-74</u>	<u>74-75</u>	
year to year	7.8%	16.3%	51.0%	

Source: State Insurance Department Annual Reports.

Table V-32.--Total American Reinsurance⁴
(in millions)

<u>Year</u>	<u>Professional Reinsurers</u>	<u>Primary Company with Professional Reinsurance Department</u>	<u>Unlicensed Alien (foreign) Reinsurers</u>	<u>Total</u>
1960	\$ 385	\$ 223	\$ 462	\$1,070
1965	592	392	510	1,494
1970	1,007	598	714	2,319
1975	2,321	1,102	1,221	4,644

1960 to 1975 percent increase in premium volume by type of reinsurer.

503%	394%	164%	334%
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⁴ National Underwriter 12/10/76 (pages 36 & 37).

Chapter VI
Major Impacts of
Product Liability

MAJOR IMPACTS OF PRODUCT LIABILITY

INTRODUCTION

The increase in product liability premiums, as well as modifications in product liability law, has had a number of impacts on those who produce, distribute or sell products. It has also affected persons who use products and those who are injured by them. We have discussed a number of those impacts throughout this report; however, it appeared useful to synthesize our information in one chapter.

Most of the topics addressed here were analyzed in summary form in the Task Force's Briefing Report. When discussing those subjects we will refer to the findings of the Briefing Report and then indicate what has been learned to either qualify or support that assertion as the result of our consideration of materials outlined in Chapter I at p. I-7 et. seq. The topics discussed will be: availability of product liability insurance; affordability of product liability insurance; product introduction and discontinuation; business failures; trends in the number of product liability claims; compensation obtained by persons injured by products; the relationship between product liability claims and product accidents; Worker Compensation systems; and product liability loss prevention.

As the discussion about some topics, e.g., business failures, will show, there is very little solid information available. Nevertheless, we have decided to discuss these subjects in order to abate the growing amount of misinformation that has been set forth about product liability.

A summary of our major findings appears at the end of this chapter.

DISCUSSION OF THE MAJOR IMPACTS OF PRODUCT LIABILITY

Availability of Product Liability Insurance

Introduction

Several definitions of unavailability, as it applies to product liability are conceivable, and persons may differ as to which one is correct. The following working definition appeared to be appropriate for the purposes of this report. Product liability insurance is unavailable to a firm when, after a thorough search of the insurance market, that firm is unable to obtain a quotation for products coverage which effects a reasonable transfer of risk from the insured to the insurer. To the extent the firm is unable to obtain coverage which it considers to be adequate, there may be partial unavailability.

The Task Force's Briefing Report found that only a few companies have been unable to obtain product liability insurance. The report noted that the problem "appears to be more one of affordability, than availability." Briefing Report at p. 6. Nevertheless, sources, both before and after the publication of the Briefing Report, have asserted that product liability insurance is widely unavailable. They have not been able to document these assertions.

We find that the situation does not appear to have changed since the time of the Briefing Report--there still is no evidence of a widespread problem of product liability insurance being unavailable. A review of the findings of our industrial and insurance contractors, industry association surveys, and reports of state insurance commissioners supports this assertion and develops the nuances of this finding.

In that regard, the product liability situation would appear to be different from that of medical malpractice in that product liability insurers are not leaving the market altogether. Surveys suggest that many companies are willing to write product liability insurance¹. Still, some companies in our target industries and in other high-risk product lines are having difficulty obtaining insurance.

It is difficult to draw a precise picture of the nature and extent of these "pockets" of unavailability. There are three reasons for this. First, it is not always clear whether a potential insured made a thorough search of all sources before concluding that product liability insurance was unavailable. Second, some companies reporting unavailability problems may have bad claims records and may be producing unreasonably unsafe products. The Task Force has concluded that unavailability of insurance to companies of this type should not be considered part of a legitimate availability problem. Finally, some reported availability problems may really be affordability difficulties: the company may in fact be able to transfer product liability risks onto an insurer. For example, some firms whose product liability premiums have increased by several hundred percent in one year may assert (when polled in surveys) that such insurance is "unavailable." We would note that at some point problems of affordability and availability merge. We discuss this issue in the next section of this chapter.

Moreover, unavailability of product liability insurance can also arise in a "partial" sense. This occurs when insurers impose limits on amounts of coverage, require large deductibles, or otherwise restrict products coverage. We will discuss limited or partial unavailability in this section and set forth our conclusions on pp. VI-52 - 53. Thus, the discussion that follows is divided into two major parts: (1) total unavailability, and (2) partial unavailability.

Total Unavailability: Analysis

Insurance Study.--The Insurance Study concluded that the availability problem--though not insignificant--was not severe as of December 1976. See Insurance Study at 3-14. The contractor found, however, that some manufacturers in each of the Task Force's target industries (with the exception of grinding wheels and aircraft components) were having difficulty obtaining coverage. Manufacturers of heavy industrial machinery were experiencing the most serious problems while firms in the grinding wheel and aircraft components industries apparently were having no problem obtaining products coverage. See Insurance Study at ES-6, 3-3.

The insurance contractor found it difficult, however, to obtain data concerning specific instances in which companies were unable to obtain products coverage². The interviews with underwriters and brokers did show that insurance companies are providing products coverage³ on a "very selective basis" for certain categories of products³.

In an effort to gain a better understanding of the availability of products coverage, our insurance contractor analyzed information compiled by the Task Force staff regarding firms which claimed that they had been unable to obtain product liability insurance. These companies included firms that (1) responded to the Industry Study's telephone survey by October 20, 1976, (2) responded to the RETORT Survey (for a description of RETORT, see Id. at 3-1, 3-8), or (3) contacted the Department of Commerce, the Task Force, or the Senate Select Small Business Committee directly.

On the basis of this information, the insurance contractor identified 62 companies by name that did not have products coverage⁴ because it was alleged to be either unavailable or too expensive⁴.

Industry Study.--Approximately 86% of the firms in the Industry Study's telephone survey indicated that they carried some form of product liability coverage. The propensity to carry products coverage varied directly with firm size as follows:

<u>Firm Size in Sales</u> <u>(Millions)</u>	<u>Percentage of Firms</u> <u>with Coverage</u>
Less than \$2.5	71.3
\$2.5 to \$100	87.4
\$100 and over	97.3

Source: Industry Study, Table IV-6 at IV-25

Of those firms that did not carry products coverage, only four indicated that they could not obtain coverage at any cost. One firm indicated that its previous coverage had been cancelled,

and nineteen firms indicated that products coverage was too expensive. Id., Table IV-7 at IV-26. No further information was available as to why the four firms were unable to obtain coverage, how hard they had searched, or what their claims experience had been. Nor did the survey show what premium levels were considered by the respondents to be too expensive.

Industry Association Surveys.--Several industry associations collected information regarding the availability of product liability insurance to their members. Some that provided detailed information on the question of availability were the National Federation of Independent Business ("NFIB"), the National Machine Tool Builders Association ("NMTBA"), the Farm Equipment Manufacturers Association ("FEMA"), and the Machine and Allied Products Institute ("MAPI").

The NFIB conducted a survey of its small manufacturer members. Of the 4,214 questionnaires mailed, 1,296 responses (30.8 percent) were received. Many of the survey's questions concerned the availability of product liability insurance.

The NFIB Survey found that approximately 58% of the small manufacturers surveyed carried some form of product liability coverage⁵. It was found that the larger the firm (in terms of gross sales), the greater the firm's propensity to carry products coverage⁶. This finding was in accord with the results of the Industry Study's survey.

Those firms which did not carry products coverage gave the following reasons:

<u>Response</u>	<u>Percentage of Firms without Products Coverage</u>
"Don't Need Any"	38.9
"No Insurer will Carry me"	2.1
"Premiums too High"	20.2
"Never Considered It"	27.2
"Self-Insured"	2.1
"Other"	3.1
"N/A"	6.4

Source: NFIB January 1977 Survey, Table 3, at 4.

As this table shows, only 2.1 percent of the firms without products coverage indicated a direct availability problem. One-fifth of the firms without coverage (8.5 percent of all firms surveyed) stated that they could not afford the level of products coverage desired. Some 15.6% of the entire survey sample stated that they did not need products coverage, and another 10% of the firms surveyed stated that they had never considered carrying products coverage.

Surveys completed by both the NMTBA and the FEMA indicate that some of their members had difficulty obtaining product liability insurance in 1976.⁷ An unspecified number of NMTBA members reported that they were operating without products coverage in 1976. Furthermore, firms in both associations were notified in 1976 that their products coverage was going to be cancelled.⁸ The surveys did not determine whether firms whose products coverage was cancelled were subsequently able to obtain coverage from another insurance carrier.

The MAPI 1976 Survey did not report any cases of unavailability among those who responded to its questionnaire.

State Insurance Commissioners.--State insurance commissioners from Massachusetts, Michigan, New York, Pennsylvania, and Virginia met with the Task Force staff on November 11, 1976, to discuss, in part, the unavailability of product liability insurance. Several of the commissioners reported that they had received a few complaints (10-30 in number) regarding products coverage but that those complaints focused upon the cost of coverage rather than its availability. None of the commissioners believed that there was an availability problem for products coverage in his state.

As a follow-up to that meeting, the insurance contractor requested the state insurance departments of California, Louisiana, Illinois, New York, Pennsylvania, and Texas to compile data on complaints they had received regarding product liability insurance. The consensus was that there was no severe availability problem at that time.⁹

In June 1977, the state insurance commissioners, acting through the National Association of Insurance Commissioners (the

"NAIC"), concluded that there was no evidence of a "widespread availability problem" for product liability insurance¹⁰. Based on its study of product liability, the NAIC has concluded that the availability problem is both short-term and limited essentially to small manufacturers¹¹.

In order to meet this limited unavailability problem, insurance commissioners in at least 21 states have encouraged the formation of voluntary market assistance programs within their states to provide product liability insurance¹² to companies that have found such insurance to be unavailable. These programs, which were endorsed by the NAIC as the appropriate solution to the limited availability¹³ problem it identified, do not address problems of affordability.

Correspondence Received by the Task Force.--As indicated in the Task Force's Briefing Report of January 4, 1977, correspondence received by the Task Force prior to the publication of that report did not indicate that there was a serious availability problem with respect to product liability insurance¹⁴. From January 4th until September 7, 1977, the Task Force received only a few letters indicating that a particular company had an availability problem. It should be noted that after its placement of a notice in the Federal Register in September 1976, the Task Force did not actively solicit information on this particular issue.

Product Liability Advisory Committee to the Under Secretary of Commerce.--Most members of the Product Liability Advisory Committee to the Under Secretary of Commerce concurred with the Briefing¹⁵ Report's conclusion regarding the availability problem.

Partial Unavailability

Definition.--Partial unavailability of product liability insurance can occur if insurers restrict policy limits, raise deductibles or restrict coverages on certain products. These limitations can force an insured to retain a risk that he wishes to transfer to the insurance system.

Policy Limitations.--Policy limitations are the maximum dollar amounts of the insurance company's liability with respect to a particular policy. There are limits on the insurer's liability for each occurrence and for a total policy year. The latter are called annual aggregate limits p. V-5.

Policy limits that insurance companies have been willing to offer for products coverage do not appear to have changed significantly since 1971. The Industry Study's telephone survey showed that the average policy limits carried by the respondents remained relatively constant from 1971 through 1976 for all three firm size groups¹⁶. The data from the various industry association surveys analyzed by the industry contractor were in accord with that finding¹⁷.

Thus, insurance companies do not seem to be forcing insureds to retain more risk than they wish by reducing the amount of coverage that they are willing to make available.

On the other hand, the Insurance Study found that insurance underwriters are reluctant to increase the limits of liability for existing policies¹⁸. Thus, some manufacturers, whose products' risk exposure appears to be increasing (due to trends in product liability law, increases in sales, new product introduction, or simply inflation) may be unable to protect themselves against that increased risk exposure by raising the limits of their products coverage. Therefore, the ratio of risk to available coverage may actually be increasing for these firms.

Information available to the Task Force is conflicting as to whether companies are satisfied with the policy limits available to them. An individual representing large insurance brokerage firms on the Product Liability Advisory Committee to the Under Secretary of Commerce emphasized that many companies have been unable to obtain what they consider to be adequate coverage at an affordable price¹⁹. In addition, several companies have written to the Task Force indicating that, although they do have products coverage, their policy limits are inadequate with respect to their exposure²⁰.

On the other hand, the MAPI Survey indicated that most of its member companies are satisfied with policy limits available to them²¹.

Coverage Restrictions.--Coverage restrictions occur when insurers limit coverage to products currently produced, or limit the amount that will be expended on defense costs. Of course, a restriction also occurs when an insurer excludes some of a manufacturer's products from overall coverage. Task Force information sources were not wholly in accord on the question of whether coverage restrictions were increasing.

On one hand, a state insurance department study in Kansas found no significant underwriting changes or market restrictions affecting products coverage²². In addition, the Insurance Study concluded that coverage exclusions are rarely imposed by insurance companies. It based this finding on its survey of 3,000 underwriting files which revealed only four instances in which specific products were excluded from the overall products coverage²³. The Insurance Study did find, however, that there are certain product categories which are underwritten only after careful scrutiny of the individual risk²⁴.

On the other hand, the Industry Study found restrictions on products coverage to be more prevalent. Approximately 10 percent of the firms surveyed in its telephone survey reported that specific products were excluded from their products coverage. Another 9.5% of the firms surveyed reported other types of restrictions, such as the exclusion of new products or the inclusion of defense costs within the policy limits²⁵.

The 1977 Hearings conducted by the Subcommittee on Capital, Investment and Business Opportunities of the House Small Business Committee produced somewhat mixed results. The Hartford Insurance Group and the Liberty Mutual Insurance Company indicated that their companies do not automatically exclude any individual product categories from coverage. In contrast, the St. Paul Fire and Marine Insurance Company does not provide coverage for completed aircraft engines, fireworks, fuses or explosive devices. Crum and Foster, Inc., a relatively small writer of product liability insurance, excludes aircraft products, pharmaceuticals, explosives and cosmetics²⁶.

Deductibles.--A deductible is that amount which the insured agrees to pay in the event of a claim and which must be exceeded before the insurer will provide coverage. See p. V-6. V, p. 5.

The Insurance Study found that only 3% of the 3,000 underwriting files contained deductibles. Insurance Study at 1-15. Fifty-nine percent of the deductibles reviewed were below \$1,000 per occurrence, while 31% were over \$25,000 per occurrence. Id.

Similarly, the Hartford Insurance Group and Liberty Mutual Insurance Company have both stated that deductibles are contained in less than 1% of their products policies²⁷. The Hartford Insurance Group evidently prefers to write full products coverage. This allows the company to retain complete control over claims and to better detect any increases in the frequency of small calims. Hartford indicated further that deductibles are used only in large national accounts which desire to retain some of their products risk but also want Hartford's claim and loss control services, together with catastrophic coverage. Deductibles for these accounts range between \$50,000 and \$1,000,000. Liberty Mutual Insurance Company indicated that the few deductibles in their CGL policies (only 1%) serve to exclude nuisance claims from the coverage.²⁸ Its deductibles typically range in size between \$100 and \$250²⁸.

The NMTBA Survey found that deductibles were more prevalent in the product liability coverage of the firms it surveyed. Twenty-three percent of the 60 responding firms reported that they had deductibles in their 1976 product coverage²⁹. The percentage was much higher for the 15 metal-forming companies responding to the survey; 40% of those companies had deductibles in 1976³⁰.

The NMTBA Survey also found that the average size of those deductibles increased significantly between 1975 and 1976 for both groups. The average deductibles in 1976 for all 60 responding firms was \$41,000, an increase of 52 percent in one year.^{30a} The average deductible for the 15 metal-forming companies was \$65,000, an increase of 63 percent from the average 1975 level.^{30b}

Similarly, the Industry Study found that deductibles were a more significant factor with regard to availability than the Insurance Study indicated. Specifically, it reported that 41% of the firms surveyed had some form of deductible in their products coverage. This represented a sharp increase in the frequency of deductibles since 1975³¹. This finding is also in accord with the finding of the MAPI Survey that 38% of the firms surveyed were required to accept a deductible or retrospective retention³².

The Industry Study also found that the levels of deductibles (combined PD and BI) have increased significantly between 1975 and 1976 for both large firms (a 61% increase to an average of \$335,000 in 1976) and medium-size firms (a 258% increase to an average of \$120,000). Industry Study, Table IV-15 at IV-37. The average deductible for the eight small firms reporting for 1976 decreased 17% to \$7,400. Id.; or see Chapter III of this report, Table III-9.

As with policy exclusions, it would appear that, while deductibles are not generally imposed on products coverage, they are becoming more prevalent among firms in the target industries. Deductibles are also increasing significantly in size for medium- and large-size firms, but this may be a matter of choice, not necessity, on the part of the individual company.

Affordability of Product Liability Insurance

Introduction

The Task Force's Briefing Report found that in the years 1974-1976, product liability insurance premiums rose substantially in most target industries.³³ Among those most severely affected were industrial machinery, industrial chemicals, and high-risk consumer goods such as pharmaceuticals, automotive parts and medical devices. Anecdotal data showed^{33a} a similar impact on sporting goods and ladder manufacturers. This conclusion was based on early evaluations of draft contractor reports. As our discussion will show, the final drafts of our contractor reports and new data that were brought to the attention of the Task Force confirm and amplify these findings.

This area, as is the case with others discussed in this chapter, does have its share of misinformation. Many firms which no longer carry product liability insurance assert that they are unable to "afford it" because of higher premiums. If these firms are correct in their analysis, it is a significant matter. These situations of unaffordability are the practical equivalent of a product liability availability problem. On the other hand, policymakers should not accept ipse dixit assertions of unaffordability.

It is extremely difficult to determine whether increases in product liability premiums have made coverage unaffordable for a particular firm. That difficulty stems from the fact that affordability is a relative concept. Each evaluation of affordability is tied to the specific circumstances of the firm (or industry) being considered and requires a complex economic analysis of those circumstances. Such an analysis would seek to determine the price elasticity of demand for the particular firm's product in order to determine whether the increase in insurance premiums can be passed on to the purchaser of the product in the form of higher prices, or whether it must be absorbed by the firm³⁴. Ultimately, the analysis would attempt to ascertain the impact of the premium increase upon the firm's (or industry's) ability to earn a satisfactory rate of return on invested capital. See also p. VII-19.

Unfortunately, such vigorous analyses of affordability--though theoretically correct--were not practicable. Therefore, the Task Force has relied upon other indicia of affordability. These indicia include examining the percentage increase in product liability rates and premiums over time and the ratio of current premiums to sales (expressed as a percentage) for the target industries.

While these indicia provide a practicable method for analyzing affordability, neither is a wholly satisfactory index which can consistently distinguish instances in which product liability premiums are unaffordable. Thus, an increase in a firm's product liability insurance premium of several hundred percent in one year may not be unaffordable if the previous year's premium was less than a tenth of a percent of sales. On the other hand, an increase in the ratio of current premium to

sales (expressed as a percentage) from 0.1% to 0.35% may be unaffordable to a firm which cannot pass on increased costs and which has a net profit margin of 1.0% of sales. The increase in premium to 0.35% of sales could be unaffordable if that firm cannot withstand a reduction of pre-tax profits by one-fourth³⁵.

Any conclusions about the affordability of products coverage are necessarily subject to the limitations inherent in these measures.

The discussion of the affordability of product liability insurance will examine the following areas:

- the increase in product liability insurance rates;
- the increase in product liability insurance premiums;
- the impact of product liability premium increases upon small firms; and
- the impact of the cost of product liability upon the cost of products.

Product Liability Insurance Rates

Product liability insurance rates for both manually-rated³⁶ and rated product categories have increased sharply during 1975 and 1976. According to the Insurance Study, increases in the rates for the target product categories varied in the range of from 100% to 500% during the first 11 months of 1976 and prior to the December 1976 increase in ISO rates, which is discussed below. See Insurance Study at ES-4. Rate changes for all product categories varied from slight decreases for products with favorable loss experience to increases of more than 900%. Id. at 2-1, 2-13 - 2-21.

Until 1975, there had been no increase in the ISO basic limit manual rates since 1963. Id. at 2-13. The ISO increased limits factors for manual rates had not changed since 1955. Id. Both were increased in 1975 and 1976. The average cumulative increase in the basic limits manual rates for bodily injury has been 83 percent, ranging from slight decreases to an increase of 660

percent in one product category. Id. at ES-4. The average standard increased limits factor for manual rates increased 200 percent. Id. at 2-14. Many products received substantial increases such as the more than 400% increase reported for household electrical equipment and the 550% increase for tools, dies, and jigs. Id.

At the time the Insurance Study was completed, rated product categories had not received a formal rate increase since 1974. Id. at 2-16. The insurance contractor, however, found that rate increases for rated products had been implemented by insurance companies since then on a case-by-case basis and that these increases generally have been greater than the ISO manual rate increases described above. Id. at ES-4, 2-16. The Insurance Study, in its underwriting file survey, found that the target product categories had "experienced average rate increases ranging from a low of 19% to a high of 568%" since 1974. Id. at 2-20. For all other rated products, the average increase was 251%. Id. (See caveats to these findings. Id.)

Furthermore, the Insurance Study found that the average rate increases between 1974 and 1976 were much greater for manufacturers as a group (320%) than for wholesalers (29%) or retailers (39%). Also, rate increases were greater for large firms and medium-size firms than for small firms. During that period the average increase for companies with over \$2.5 million in sales in 1975 was 510% versus a 39% increase for firms with under \$2.5 million in sales. Id. at 2-21.

These findings should be viewed with caution. Since the firms in the sample were not stratified by product category or type of business, the size of firms may be related to the nature of the business, e.g., the larger firms may be predominantly manufacturers while the small firms may be predominantly retailers and wholesalers. Further, we cannot determine whether these findings are consistent with the Industry Study where only manufacturing firms were included.

The insurance contractor also estimated the ratio of the then current product liability rates to sales (expressed as a percentage) for the target categories. As with all of the above data, it is important to remember that these figures do not

reflect the application of experience or schedule modifications; nor do they include data from policies which are composite rated, loss rated, or rated retrospectively. Id. at 2-20, 2-23.

Applying basic limits rates and increased factors up to a limit of liability of \$500,000 for both bodily injury and property damage, in accordance with industry practices, the insurance contractor estimated that the ratio of product liability rates in effect in 1976 to sales for the target industries ranged from .06% up to 3.12%. Id., Exhibit C-2 at 2-25 - 27. The Insurance Study found that 48% of the product classifications within the target industries (limited to those rated by sales exposure in dollars) have rates which were less than 1% of sales, while only approximately 6.0% were above 3% range. The distribution of rates as a percentage of sales was as follows:

Applied Rates as a Percentage of Sales for
Target Product Categories

	Number of Product Categories	Percentage Distribution
Rates less than 0.5% of sales	15.0	31.3
0.5% to 1.0%	8.0	16.7
1% to 2%	17.0	35.4
2% to 3%	5.0	10.4
Over 3%	3.0	6.2
Total	48.0	100.0%

Source: Insurance Study, Exhibit C-1 at 2-24.

In December 1976, ISO formally revised the basic limits rates for rated product categories for the first time since 1974. Rates for a significant number of rated product categories were increased more than 100%. Some of the rated product categories experiencing rate increases of 100% or more are listed in Exhibit V-4 in Chapter V of this report.

This ISO rate revision occurred after the Insurance Study was completed, and it is not clear how the revision affects that study's findings. As was noted above, the insurance contractor observed in its underwriting file review that most insurance companies had already implemented substantial rate increases on a case-by-case basis with respect to rated products since the last formal rate revision in 1974. Insurance Study at ES-4, 2-16 - 17. The December 1976 increases may have resulted in further increases in some cases and merely formalized de facto increases in others.

In addition, it is important to recall that the rates for rated product categories are intended only to be guides to underwriters. Again, the Insurance Study found that underwriters increased their implicit rates above those "guides" sharply when applying the 1974 rates during the period between 1974 and 1976. Id. It is uncertain whether underwriters will apply the (A) rates as revised by the December 1976 filing, or whether they will continue to modify them when applying them to specific underwriting situations.

Some of the product categories with rates exceeding 1% of sales following the December 1976 revision are:

- Abrasive wheels (1.18%)
- Automotive manufacturers (1.11 to 2.81%)
- Construction, mining, and material handling equipment (3.3%)
- Farm machinery and equipment (.92% to 4.04%)
- Ladders (12.89% to 23.55%)
- Industrial machinery and equipment (2.0% to 7.3%)
- Machinery (5.3)

The level of coverage assumed in Exhibit V-6 in Chapter V, and discussed above, is substantially below the \$500,000 level for bodily injury and property damage which was found by the insurance contractor to be the most frequently used and which it incorporated in its analysis³⁷. Insurance Study at 2-23; Chapter VI, p. 15. To the extent that companies carry higher policy limits than the limits assumed in either of these analyses, the cost of their products coverage will be a greater percentage of sales.

Product Liability Premiums

Introduction.--Data on product liability rate increases may not indicate changes in the premiums actually being paid by companies for several reasons. First, according to ISO, manually rated policies represent only 10% of the total product liability exposure. See p. V-20; Insurance Study at 2-9.

Second, both inflation and real growth in a company's sales may cause its product liability insurance premiums for a fixed amount of coverage to increase -- even while product liability insurance rates remain constant. This is because product liability insurance rates are stated in terms of the level of sales of a firm.

Third, as the Insurance Study emphasizes, underwriting decisions are extremely subjective. The product liability premiums charged by insurance companies can and do vary substantially from the ISO manual and guide rates for many reasons, including: the level of risk exposure, the level of deductible accepted, the limits of liability required, the product mix of the insured, the application of experience and schedule modifications, and the amount of other business generated by the insured.^{37a} For example, a representative of the Hartford Insurance Group has indicated that its company's underwriters regularly vary from the ISO manual rates in determining premiums for products coverage. On the other hand, a Liberty Mutual representative has indicated that manual rates are usually applied to smaller risks³⁸.

ISO itself does not know the extent to which insurance companies³⁹ abide by the manual and guide rates in determining premiums. Therefore, the best sources of actual premium trends that came to the attention of the Task Force were the Industry Study, industry association surveys, letters from the public, and information provided by the Product Liability Advisory Committee to the Under Secretary of Commerce. These sources are reviewed herein.

Industry Study.--The Industry Study found that 83% of the firms that carry products coverage do so through comprehensive general liability (CGL) policies which provide a variety of

coverages in addition to products coverage. Industry Study, Table IV-9 at IV-28; see also Insurance Study at 1-14. The average cost of CGL coverage for the firms responding to the Industry Study's telephone survey increased 207% during the period from 1971 through 1976. The increase between 1974 and 1976 was 119%. Importantly, the level of CGL cost per thousand dollars of sales, as well as the percentage increases, were significantly higher for medium- and small-size firms than for large firms. See Industry Study, Table IV-10 at IV-30, or Chapter III of this report, Table III-5. See also p. V-20.

Because products coverage is only one segment of the coverage provided by a CGL policy, the industry contractor asked the firms reporting cost data for CGL policies to estimate the cost of their products coverage for their entire product line (per \$1,000 sales) from 1971 through 1976. Approximately 80% of those firms did so, and their estimates are contained in Chapter III of this report. The average estimated cost for products coverage for all firms was \$2.81 per thousand dollars of sales in 1976. These costs ranged from \$1.09 per thousand for large firms to \$5.32 for small firms. See Chapter III, Table III-6; or Industry Study, Table IV-12 at IV-33.

The average increase in premiums paid per thousand dollars of sales for products coverage between 1971 and 1976 for all firms responding was 280%. The percentage increases in the cost of products coverage for the periods 1971-1976 and 1974-1976 by firm size were as follows:

Percentage Increase in Cost Per \$1,000 Sales
for Products Coverage in CGL Policies
by Firm Size

Size of Firm	Percent 1971-1976	Percent 1974-1976
Small firms	384	226
Medium firms	247	223
Large firms	102	98
All firms	280	209

Source: Industry Study, Table IV-12
at IV-33 (or see Chapter
III of this report, Table
III-6.

Again, both the estimated cost of product liability coverage per thousand dollars of coverage and the percentage increases in that cost were substantially higher for small- and medium-size firms than for large firms. Id.

Estimates of the cost of products coverage for the target product categories also show substantial percentage increases in premiums since 1974. These increases followed the period between 1971 and 1974 during which the cost per \$1,000 of sales decreased for more than half of the target categories. See Industry Study, Table IV-13 at IV-34 or Chapter III, Table III-7. The percentage increases in the estimated average cost of products coverage per \$1,000 of sales for the target product categories during the periods of 1971-1976 and 1974-1976 are shown below:

Percentage Increases in Estimated Average Cost
of Products Coverage Per \$1,000 Sales for Target
Categories between 1971 and 1976

<u>Product Category</u>	<u>Percentage Increase in Cost</u>		
	<u>1971-1974</u>	<u>1974-1976</u>	<u>1971-1976</u>
Industrial Machinery	15	189	231
Metal Castings	-23	227	153
Grinding Wheels	89	90	259
Industrial Chemicals	-39	271	127
Power Mowers	-01	276	271
Automotive Components	8	149	170
Pharmaceuticals	46	388	613
Medical Devices	-05	414	389
Aircraft Components	-36	71	10

Source: Industry Study, Table IV-13 at IV-34 (see Chapter III of this report, Table III-7).

The target product categories with the largest premium increases since 1974 were (in order of magnitude): medical devices, pharmaceuticals, power mowers, industrial chemicals, and metal castings.

Despite the large increases indicated above, in 1976 the average estimated cost of products coverage exceeded one percent of sales only in three target categories: pharmaceuticals (1.08%), medical devices (1.12%) and aircraft components (1.11%). Id. Estimates of the average cost per \$1,000 sales for products coverage reported by firms in the other target product categories were well below the one percent level. Id. For a discussion of some of the problems associated with the "one percent" benchmark, see the discussion at pp. VI-23 - 24.

The estimates of the average cost of products coverage per \$1,000 of sales reported in Table IV-13 of the Industry Study are subject to several limitations. First, the number of firms reporting data on the target categories is, from a statistical perspective, very small. That total number varies from 76 for 1971 to 140 for 1976; the number of firms reporting per target category ranged between 5 and 22 firms.

Second, the findings of the Industry Study on this subject are to some extent based on estimates about premiums paid over a 6-year period. This is because the cost of products coverage within a CGL policy is not identifiable for some firms⁴⁰. Nor is that cost broken down by specific products in some instances. Insurance Study at 2-30.

Finally, the premium level reported may differ depending upon when the data are reviewed by the responding firm. In that regard, the Insurance Study describes how estimates of premiums may be affected by policy audits, loss experience under retrospective plans, and policy dividends. Id.

Trade Associations.--The findings of the Industry Study's telephone survey regarding the affordability of product liability insurance are generally in accord with data gleaned from various trade association surveys which were made available to the Task Force. See pp. III-18 - 48.

For example, in the MAPI survey, 86% of the 177 responding firms reported that their product liability insurance premiums were less than 1% of sales. MAPI Survey at 23. Twenty-seven percent indicated that their premiums were less than 0.1% of sales. Id. Also, 58% of the responding firms indicated that

their total product liability costs--comprised of premiums, the uninsured cost of payments to others, and indirect costs related to product liability--increased between 100% and 1,000% in the past five years, while 30% reported that these costs increased less than 100% during that period. Id. at 24.

Similarly, the average product liability premium cost was less than 1% of sales for 46 of the 60 firms (77%) responding to the National Machine Tool Builders Association Product Liability Survey ("NMTBA Survey"). NMTBA Survey at C-87. The average premium cost for the other 14 firms, all of whose sales ranged from \$5 million to \$15 million, was between 1% and 2% of sales. Id.

Data on trends in the average cost of product liability insurance submitted by some 16 trade associations to the industry contractor for analysis are also in accord with the findings of the telephone survey regarding premium increases. See Industry Study at IV-8, IV-72 - IV-74 (includes data from NMTBA Survey above). Those surveys indicated that annual premium increases for products coverage during the 1974-1976 period were generally 2 to 10 times as high as during the 1970-1974 period. Id. at IV-8. The range of annual increases during the last 2 years was from 22%⁴¹ to 225% in contrast to the range of 0% to 55% from 1970 to 1974⁴¹. Id.

Correspondence Received by the Task Force Regarding Affordability.--The correspondence received by the Task Force regarding the affordability of product liability insurance suggests that some firms have been affected more severely by product liability insurance premium increases than was indicated by the averages found in the Industry Study. This information cannot be generalized, but it is presented to show exceptional cases that are sometimes lost in mass averaging of data. It should be noted that, while many of the firms writing to the Task Force stated that they have had no product liability claims made against them, the Task Force has no independent knowledge regarding the claims history of these firms or the degree to which they have implemented adequate loss prevention programs.

A total of 323 letters concerning product liability were received by the Task Force prior to January 31, 1977⁴². Of the

168 firms which wrote letters specifically addressing the subjects of the affordability and availability of products coverage, 33 firms (20%) declared that they were unable to obtain a quote for products coverage from any insurer, while 22 companies (13%) stated that products coverage was unaffordable. Another 113 firms (67%) stated that their premiums have been rising sharply and indicated concern as to whether they would be able to obtain affordable product liability insurance in the future.

Many of the companies that wrote to the Task Force regarding the affordability of products coverage produce durable goods such as industrial machinery. A description of five typical letters is set forth below:

- Industrial machinery manufacturer with minimum 1976 premium of \$26,520 for \$1.3 million in sales--a premium increase of over 1,800% in one year and a premium equal to 2% of sales; increase in premium will reduce gross profits by 50%. Letter to Secretary of Commerce (8/31/76).
- Industrial machinery manufacturer with 1976 premium of \$232,000 for \$14 million in sales--a premium increase of over 1,680% since 1974 and a premium equal to 1.7% of sales. Letter to Task Force (10/7/76).
- Industrial machinery manufacturer with 1976 premium of \$41,000 for \$4 million in sales--a premium increase of 486% in two years. Letter to Task Force (10/8/76).
- Packaging machinery manufacturer with 1976 premiums of \$68,000 for \$1 million in coverage--equal to approximately 2% of sales. Letter to Task Force (10/11/76).
- Manufacturer of insulation stripping equipment, coverage unavailable at a reasonable cost. Letter to Department of Commerce (6/7/76).

Letters received by the Task Force from firms in other industries also suggest that the premium increases for products

coverage have been greater for some firms than the average results of the Industry Study's telephone survey would indicate. For example, the letters provided to the Task Force by the Senate Select Committee on Small Business describe a range of premium increases from 100% to 7,200% in one year⁴³.

The Product Liability Advisory Committee to the Under Secretary of Commerce.--Another source of information was the Product Liability Advisory Committee to the Under Secretary of Commerce. Generally, the members found the conclusions in the Industry Study regarding increases in premiums for product liability insurance from 1971 through 1976 (set forth in the Industry Study at I-6) to be consistent with their own experience. Transcript, Advisory Committee on Product Liability, Fourth Meeting, pp. 38-41 (6/27/77).

They have also indicated that, subject to several important caveats, they concurred with the conclusion--which was set forth in the Briefing Report--that for most industries, product liability insurance premiums remain below 1% of sales⁴⁴. A number of members, however, expressed the belief that the 1% figure does not describe the full impact of the product liability premium increases which have occurred since 1974. Their caveats, which are discussed below, manifest that general concern.

First, several members emphasize that for certain firms and industries, product liability insurance premiums are significantly greater than 1% of sales. Furthermore, only limited amounts of coverage are available to such firms. Small businesses and manufacturers of durable goods (such as machine tools) which have been in business for a relatively long period of time are two examples of the type of firm for which the 1% figure is felt to be unrepresentative⁴⁵.

Second, they point out that the 1% figure may be misleading because it overlooks the pyramidal or cumulative effect of the cost of product liability premiums as a product passes through the chain of distribution⁴⁶.

Third, some committee members contend that the current 1977 situation is worse and that new data collection would show that the 1% figure is being surpassed by more companies⁴⁷.

Fourth, there are many other costs besides insurance premiums incurred⁴⁸ by companies as a result of the product liability problem. They include expenses for claims handling and investigation, losses paid within the policy deductible, loss prevention programs, and other indirect costs. These costs are borne totally by the insured and are not reflected in the 1% figure. See discussion of impact of product liability upon the cost of products. See pp. VI-22 et. seq.

Impact of Product Liability Insurance Premium Increases Upon Small Firms.--The Task Force found that small firms in the target industries have been affected more severely by the increases in product liability premiums than medium- and large-size companies. The data available to the Task Force suggest not only that product liability insurance is more expensive for small firms than for large firms in those industries, but also that small firms are generally less able to cope with affordability problems.

As was discussed above, the Industry Study's telephone survey found that the size of the percentage increases in premiums for products coverage during the period from 1971 through 1976 was inversely related to firm size. See p. VI-18. It also found that the estimated cost per thousand dollars of sales for products coverage was consistently higher for small firms than for larger firms during that entire period. Industry Study, Table IV-12 at IV-33. Finally, of the 19 firms that reported products coverage to be unaffordable, 12 were small firms. Id., Table IV-7 at IV-26. See also p. V-21.

The data from the underwriting file survey of the Insurance Study differ from the results of the telephone survey described above. The underwriting file survey--which was not restricted to firms in the target industries--indicated that the percentage increases in rates for products coverage from 1974 to 1975 were much greater for firms with over \$2.5 million in sales than for small firms. Insurance Study at 2-21. Specifically, it found that the average rate increase for the former group from 1974 to 1975 was 510%, while for small firms (under \$2.5 million in sales) the average rate increase was only 39%. Id.

There is no certain explanation for these different pictures of the relative position of small businesses vis-a-vis product liability. The difference may be related to the fact that the telephone survey was restricted to the target manufacturing industries, a majority of which were thought to have product liability problems when they were selected by the Task Force, whereas the underwriting file survey covered all types of industries including retailers and wholesalers. It may also be related to the fact that the telephone survey describes product liability premiums while the latter describes product liability rates (see p. VI-17). If the firms in the underwriting file survey had been stratified by industry category, as well as by the size categories used for the Industry Study's telephone survey, a more meaningful comparison could be made.

In any case, the Insurance Study did note that small firms generally have been less able to cope with any affordability problems they might encounter. In that regard, it concluded that firms with over \$10 million in sales generally have been able to retain essential products coverage at an affordable premium, in spite of the substantial increases in product liability rates, by making certain modifications in their coverage. These modifications include assuming a larger deductible or accepting a retrospective rating plan. Id. at ES-5. It found smaller companies to be less flexible in their insurance needs and unable to adapt their coverage to meet the exigencies of the current product liability problem. Id.

Information from the Product Liability Advisory Committee to the Under Secretary of Commerce and from the National Association of Insurance Commissioners indicates that products coverage is less affordable for any small companies than for larger firms⁴⁹.

The National Association of Insurance Commissioners (the "NAIC") concluded from its study of product liability that any availability⁵⁰ and affordability problems affected primarily small businesses.

Insurers have given reasons why^{50a} premiums may be less affordable for some small companies. First, some small businesses are less able to keep abreast of and implement technological advances relating to the safety of their products

than larger-size firms⁵¹. While data suggest that this is true in certain cases, it does not explain all of the premium differences between large and small businesses.

Second, small firms may not have the financial resources necessary to retain a significant portion of their risk exposure through a high deductible, a step which would reduce premium costs. This is evidenced by the high incidence of low deductibles observed among small firms by both the insurance and industry contractors. Insurance Study at 1-15; Industry Study, Table IV-15 at IV-37. A staff analysis of the data collected in the Industry Study, however, suggests that the difference in the level of deductibles between large and small firms does not account for all of the premium differences.

Third, the impact of high product liability insurance rates for hazardous products upon a firm's product liability premiums can be diluted by low-risk products sold by that firm.^{51a} To the extent that small firms tend to have a narrower product mix than medium- and large-size firms, they may be less able to benefit from this dilution effect. The insurance industry has not provided extensive specifics about this assertion or indicated why it could not utilize a product-by-product premium (breaking down the premium for businesses with a diverse product mix).

Fourth, insurance companies do not consider the individual loss experience of small firms to be credible for underwriting purposes. Therefore, insurance companies do not credit small firms for good loss experience when determining their product liability insurance premiums, as they do in the case of large firms. Similarly, insurance companies are reportedly unwilling to rate small firms retrospectively. Insurance Study at ES-5. The validity of these practices is questioned by many small businesses.

Fifth, insurance companies perceive a greater margin of protection in providing products coverage to large firms because of the large premiums they generate. The insurance companies believe that, all other things being equal, the probability that a product produced by a small firm will cause an injury is the same as that for a product produced by a large firm. They appear to be comforted by the greater likelihood that the large premium

generated by a large company will cover any big loss than is true for small firms⁵².

Finally, insurance company underwriters may be inclined to reduce product liability premiums for large firms because they find other portions of those accounts to be very desirable business⁵³. This last point would appear to have the broadest applicability. Overall, product liability premiums may be less affordable for a small business than for a larger business producing a product with the same risk characteristics. Compare the discussion at pp. V-19 - 23 in regard to insurance industry comment on this point.

Impact of Product Liability Upon the Cost of Products.--One cannot systematically measure the impact of the increased cost of product liability insurance upon the cost of products, and policymakers should be wary of any generalizations made about this subject.

As this report has indicated, estimates can be made about product liability as a percentage of sales. See pp. VI-18 - 20. Nevertheless, a company must then make a judgment as to whether and how it can pass on the cost of product liability insurance in the price of its product. It has been reported to the Task Force that some companies in the pharmaceutical industry have been able to do this with surprising ease⁵⁴. In contrast, manufacturers of sporting goods have alleged that premiums for product liability coverage already represent 15% of the sales price of some sporting goods equipment, and it may not be possible to increase prices further.

A manufacturer of durable goods which has been in business for a long time may not be able to "pass on" increased product liability premium costs in the price of his product. This is because the a large portion of the rise in his premium may be due to risks posed by older products that are still in use. A newer manufacturer of such equipment would not be burdened with such product liability premium costs. In order to remain competitive with the newer companies, the older manufacturer may be unable to reflect increased product liability insurance costs in the price of his product.

Some manufacturers of machine tools have estimated that at present, product liability insurance premiums comprise over 10% of the price of their products⁵⁵. This estimate would appear to be the "high-water mark." In most situations in our target industries, product liability insurance represents less than 1% of sales. If we assume that the manufacturer is able to pass on this cost to the purchaser, this does not mean that the price of the "end product" will increase only 1%. However, if some intermediate handlers, such as distributors and retailers, have been subject to increased product liability premium costs, they, in turn, may attempt to pass on that cost to the purchaser of the product⁵⁶.

Finally, there are many other costs, in addition to insurance premiums, incurred by firms as a result of product liability. They also may cause the price of a product to increase. These other costs include, without limitation: losses paid that are within the policy deductible, claims handling and investigation by a company, legal staff expenses, product liability loss prevention programs, and non-legal defense expenses. These costs, too, are subject to the cumulative effect described above at each link of the production chain. Unfortunately, accurate data with respect to these costs may be impossible to compile. Some industry sources allege that the total amount of these uninsured costs are substantial⁵⁷.

Subject to these limitations, our data regarding the cost of product liability insurance as a percentage of sales give a very general idea about how increased product liability insurance costs have affected the price of products.

Product Introduction and Discontinuation

Introduction

The Briefing Report found that concern about product liability has caused some manufacturers, e.g., pharmaceuticals, to forego or delay the introduction of new products. The final draft of the Industry Study and other new information reaching the Task Force have supported this finding.

Some sources have alleged that product liability suits and increased product liability premiums have had a substantial effect on diminishing the development of new and worthwhile products in American industry. We have not been able to substantiate these assertions.

Product liability problems may in certain industries reinforce trends against new product development, and some socially beneficial products may never be developed. Furthermore, product liability may cause some manufacturers to discontinue production of existing products. These trends may be especially true for smaller firms that produce high-risk products. On the other hand, some of the products that are not produced or that are discontinued may be ones whose potential for causing harm outweighs their social utility. In the time period of our study we were not able to make a determination on this issue, but we believe it deserves further attention.

Analysis

Industry Study Findings.--The industry contractor found that 26 of the 337 firms it surveyed (8%) stated that they had delayed or cancelled the introduction of new products because of product liability problems. See Industry Study at IV-13. Twenty-three of the firms surveyed (7%) reported decisions to discontinue products during 1975 and 1976. Industry Study at IV-12. Another 13 firms (4%) stated that they were considering discontinuing one or more products. Industry Study at IV-63. In addition, among the 20 firms interviewed in personal visits by the industry contractor, 6 firms reported some constraint or reduction of product lines because of product liability considerations. Industry Study at IV-102.

Other Surveys of Product Manufacturers.--The National Federation of Independent Business ("NFIB") found that 12.8% of the 1,296 firms responding to its survey reported that product liability problems caused them to forego the development of a new product (new to their firm). NFIB Survey at 11 (January, 1977). In addition, 4.6% of the responding firms stated that they had discontinued a product or plan to do so because of product liability considerations. Id. at 10.

Two other surveys indicate that product liability has affected the product mix of business firms. The survey conducted by MAPI found that 16% of the responding firms (33 of 206) believed that the increase in product liability claims has inhibited the development of new products or caused the discontinuation of existing products. MAPI Survey at 2, 25. Similarly, 17% (31 of 180) of the firms responding to a survey conducted by five members of the U.S. House of Representatives stated that they had been "forced to abandon" at least one product as a result of product liability⁵⁸.

Net Impact Upon Society of Product Liability's Inhibiting Effect on New Product Development.--It is difficult to assess whether the net impact upon society of product liability's inhibiting effect on new product development is positive or negative. Product liability may deprive society of products which, though dangerous, would nonetheless be beneficial, e.g., highly effective drugs, which induce serious side effects in a small proportion of the user population. On the other hand, it may cause manufacturers to forego or discontinue production of unreasonably dangerous products or to delay their production until design or production improvements can be implemented.

The recent Swine Flu program is an example of the potential impact of product liability upon the introduction of new products and its effect upon society^{58a}. In that situation the President determined that the swine flu vaccine would be a socially beneficial product which was vitally necessary to protect the population against a predicted nationwide epidemic of swine flu. Congress appropriated \$135 million to fund a mass immunization program. The pharmaceutical companies which were to provide the vaccine, however, refused to proceed with the production of the vaccine because they were unable to obtain adequate product liability insurance. Despite the fact that in most states manufacturers of pharmaceuticals have no duty to warn about unforeseeable risks and are not subject to liability for unavoidable risks when a proper warning is given, the companies and their insurance carriers were unwilling to assume the entire risk of the program. Their apparent rationale was that they could be subject to defense costs and protracted litigation as courts decided these issues⁵⁹.

The solution agreed to by the insurance carriers and Congress had the effect of shielding the pharmaceutical companies from liability for other than negligence and from the burden of defending the potentially large number of claims which might arise from the program⁶⁰.

The Swine Flu situation is characteristic of the product liability problem's potential to affect new product introduction, especially with respect to the pharmaceutical and medical devices industries. As has previously been described, these two industries have suffered the largest percentage increase in their product liability premiums of all the target industries during the period of 1971 through 1976, according to the Industry Study's survey⁶¹. The pharmaceutical and medical devices industries also have had the largest percentage increases in premiums during the period 1974-1976: pharmaceuticals, 388%; medical devices, 414%.

Several letters received by the Task Force since January 1, 1977, indicate that the product liability problem might be more severe for certain companies in these two industries, especially highly innovative firms. For example, one company which produces medical implants was able to obtain only one-tenth its 1975 coverage in 1976, yet its total premium increased 43%. The president of this company indicated that the distributors for his products were reluctant to handle them because of his company's "inadequate" product liability coverage. The writer said that his company⁶² has never had a product liability claim brought against it. Another company which produces medical equipment stated in its letter to the Task Force that only after a great deal of effort was it able to secure \$1 million in coverage for 1977--which the company president found to be "inadequate"--at an annual premium of \$197,500 or 12.3 percent of sales⁶³.

To the extent that companies manufacturing pharmaceuticals and medical devices are unable to obtain affordable product liability coverage for their new products, as initially occurred for the swine flu vaccine, there may be an adverse impact upon medical research and upon the development⁶⁴ and marketing of new products which may be socially beneficial.

By reducing the amount of product innovation and causing the discontinuation of some products, product liability may have a second adverse impact. It may cause a reduction in competition within certain industries and in the number of small businesses⁶⁵. In that regard, the NFIB Survey indicated that this impact may be concentrated in certain industries. It found that firms in selected manufacturing industries were two to three times as likely to discontinue or to fail to develop a product than the firms surveyed overall⁶⁶. This tendency could lead to higher concentrations of market power within those industries. Also, because many of the firms surveyed by the NFIB have only one product line, their failure to introduce new products or their discontinuation⁶⁷ of a product may dramatically reduce their ability to compete.

Business Failures

Introduction

The Briefing Report indicated that the Task Force had no evidence that product liability problems were forcing companies out of business. Nevertheless, this is a topic where many undocumented assertions have been made that this was indeed occurring⁶⁸.

Neither the independent contractors nor the other sources outlined at pp. I-7 - 17 produced a single verified case of a business failure solely and directly caused by product liability problems. Circumstantial evidence, however, suggests that substantial product liability premium increases may be one of several causes that lead to the closing of small businesses in high-risk product lines. Also, some small businesses in the future could be placed in default by product liability judgments.

Analysis

Business Termination because of Product Liability Premium Costs.--Substantial increases in the cost of product liability insurance may make some companies unprofitable. Product liability premiums have increased generally by several hundred percent since 1974 (pp. VI-17 - 24), but some companies have experienced increases of over 1,000%⁶⁹.

While we have found that in most instances the cost of product liability insurance remains below one percent of sales, it has been reported that some firms are required to pay premiums equal to more than 10% of sales⁷⁰. To the extent that companies are unable to pass this increased cost on to their customers, product liability may severely reduce or eliminate their profit margins. This would appear most likely to occur with respect to manufacturers of durable goods where present prices may not be able to absorb liability costs that have arisen due to products produced in the remote past.

It also may occur with regard to companies that operate on very low profit margins (ratio of net profits before tax to gross sales). Profit margins for wholesaler-distributors, for example, reportedly average about 1% to 3% of gross sales⁷¹. Thus, if a firm had a 3 percent profit margin and it was subject to an increase in product liability premiums from 0.5 percent to 1.5 percent which could not be passed on to its customers, its net profits before tax would be reduced by one-third (assuming all other costs remained the same). To assess the ultimate impact of this increase on the firm in question, however, one must determine the effect of premium increases upon its rate of return on invested capital.

It has been suggested to the Task Force that companies which are unable to obtain adequate and affordable product liability insurance may choose to liquidate voluntarily rather than to expose their net worth to substantial uninsured risks from product liability. Only one instance (unverified) of such a voluntary liquidation has been brought to the attention of the Task Force⁷².

In this instance, a firm's premiums reportedly increased from \$2,000 to \$200,000 in one year. This example has been cited frequently, but no source has undertaken an independent detailed investigation of the circumstances of this company's voluntary liquidation. ✓

Recently, the names of several other firms that allegedly have terminated business due to increased product liability premiums have been reported, to the Task Force, but the circumstances of these firms also have not been verified⁷³.

There are several reasons why it is difficult to obtain accurate information as to whether businesses fail because of product liability. First, companies which have gone out of business are not likely to respond to surveys or to make their views known by other means. Second, it is very difficult to determine the cause of a business failure. Verifying that increased product liability premiums, rather than insufficient capitalization, mismanagement, or a combination of factors, caused the demise of a particular business may, in fact, be impossible. This is particularly true for small businesses which have an average life expectancy of only several years.

In sum, circumstantial evidence suggests that in some instances, increased product liability premiums may be one of several factors that might cause a small manufacturer of a high-risk product to terminate operations.

Business Termination because of Unsatisfied Product Liability Judgments.--As will be indicated in our discussion of mandatory product liability insurance and unsatisfied judgment funds, no case has been reported to the Task Force where a manufacturer was unable to respond to an adverse product liability judgment. See p. VII-190. The potential, however, may exist. In that regard, the Industry Report showed that within the small firm category, 29% of those surveyed had no product liability insurance. See Industry Study at I-7. Most respondents said that they "did not need it". The contractor did not determine whether these companies had sufficient capital and income to respond to product liability judgments, and it is unlikely that those manufacturers would voluntarily come forth with that information. We do know that most of the companies surveyed by the contractor produce high-risk goods and would have greater potential than the average company to be subject to product liability suits.

The recent NFIB Study shows that almost 3% of its small business membership have recently "gone bare"; they used to have product liability insurance and no longer can afford it. NFIB Survey, p. 3 (1977). That survey, however, does not disclose whether those companies can afford to self-insure.

In sum, circumstantial evidence suggests that a few businesses may be operating without sufficient economic resources to enable them to respond to a series of substantial product liability judgments. At this point, however, we are left to speculation on the matter and for that reason did not conclude that it is necessary to enact mandatory product liability insurance laws or establish unsatisfied judgment funds at this time⁷⁴.

TRENDS IN THE NUMBER OF PRODUCT LIABILITY CLAIMS

Introduction

The Briefing Report did not provide a discussion of trends in the number of product liability claims or lawsuits. At that time our data were too inchoate to reach conclusions on those subjects. The Briefing Report did note that the total dollar amount of pending claims appears to have increased substantially in the 1970-75 period. The final version of the Industry Study has confirmed that finding. See Industry Study at I-8; Chapter III at p. 3 (showing the average number of pending claims increased nearly six times from a level of 3.5 in 1971 to 18.9 in 1976). As Chapter III indicates, large firms had the greatest pending claims frequency. See p. III-13.

In spite of the fact that our data are still not extensive, we believe it is important to set forth our findings as to trends in the number of product liability claims and lawsuits, for these are areas in which both policymakers and the public have been confronted with a great deal of misinformation. Some misinformation results from the fact that people are not always careful in making the distinction between a claim and lawsuit. Some results from the use of insubstantiated data and unreliable estimates to advocate a particular point of view. It should be noted that no organization, private or public, currently records all product liability claims or lawsuits. The Insurance Services Office records some data on product liability claims. In the judicial system, only the State of Connecticut and the federal courts process data on product liability law suits.

Analysis

Despite the lack of comprehensive data, estimates of the number of product liability claims and lawsuits have been bandied about by all sides of the product liability controversy.

Some representatives of the insurance industry and of product manufacturers have asserted that between 1,000,000 and 1,500,000 product liability lawsuits were commenced in 1975.⁷⁵ Very recently, a product liability insurer advertised in a national news magazine that one million claims were filed in 1976.⁷⁶

Representatives of consumers and of plaintiffs' attorneys have questioned these estimates, contending that there is no evidence to support these large numbers. For example, Mr. Ralph Nader stated at the First World Congress on Product Liability that the number of product liability lawsuits filed annually is approximately 50,000.⁷⁷

If accurate information on the number of product liability claims and lawsuits were available, it would be valuable for at least two important reasons. First, it would indicate how many of the persons injured by products enter into the product liability system seeking compensation for injuries. That information would be useful in evaluating the tort liability system as a reparations mechanism.

Second, such data might provide a rationale for the rise in product liability insurance premiums which has been observed since 1974. See p. VI-17 et. seq. Our conclusions as to how these data might be obtained are set forth at p. V-48.

Trend Data Collected and Reviewed by This Study

Industry Study

The Industry Study's telephone survey showed that the number of new product liability claims reached an apparent plateau in the period from 1973-1975. See Industry Study at I-8. The same trend was evident in the industry association surveys. Id. at I-9. The telephone survey also indicated that the average amount

of damages sought per firm rose substantially from 1971 to 1976, but there the average amount of settlements stabilized in the period 1973 to 1975. See Id. at I-9.

Insurance Services Office

A representative from the Insurance Services Office recently testified that that organization has "no reliable quantitative analysis to indicate whether and to what extent claim frequency is increasing."⁷⁹

On the basis of preliminary data from ISO's Closed Claim Survey, the organization estimates that between 60,000 and 70,000 product liability claims are filed annually in the United States.^{79a} The basis for this estimate would appear to be the fact that ISO was able to locate 24,000 closed product liability claims during that 8.5 month closed claim study. It estimates that the 23 companies participating in the study write 60 percent of the total product liability coverage.

This would render the ISO estimate a reasonable one in light of the fact that the number of claims closed in a given year does not necessarily reflect the number of claims made: there is a gap between the time a claim is made and when it is closed. Again, data are not available at the present time to make a better estimate; we believe that ISO's estimate as to the number of insurance claims filed annually is about the best "guess" that has been made to date.^{79b}

Connecticut Court System

Regarding trends in the number of lawsuits, Connecticut is the only state which collects data on the number of product liability cases filed annually. That data shows that the number of product liability suits filed in the State of Connecticut rose 58% from 1974 to 1976. See p. II-45. The total number of cases filed in 1975 was 174.

Federal Court System

Likewise, statistics from the Federal court system indicate an unquestionable increase in the number of product liability

lawsuits being filed. The number of such cases has increased from 1,579 in 1974 to 2,886 in 1975, to 3,696 in 1976. This represents an increase of 134 percent in two years. In fiscal year 1976, these new product liability lawsuits comprised 14.4 percent of the new tort cases but only 2.8 percent of the civil cases commenced in Federal district court. See p. II-45.

Legal Study's Survey of Appellate Cases

As Chapter II indicates, our Legal Study included a survey of the appellate decisions involving product liability from eight sample states during the period from 1965 through September 29, 1976. See p. II-8.

The survey found that the number of product liability appellate cases increased by 71 percent from the 1965-1970 period to the period January 1971 through September 1976. See p. II-51. Of course, an increase in appellate cases does not necessarily reflect an increase in the number of product liability claims or lawsuits. It is also of note that the contractor found that 33 states had an insufficient number of reported product liability decisions to be included in the survey. Vol. III, Legal Study at 38.

COMPENSATION OBTAINED BY PERSONS INJURED BY PRODUCTS

Introduction

The Briefing Report indicated that some persons who are injured by products receive full compensation from the present tort-litigation system, but many persons do not. "Full compensation" was defined as total recovery of all loss of earnings, medical costs and other injury-related expenditures.

Some sources have stated their belief that product liability is the major source of compensation for persons injured by products. Taking account of all weaknesses in data bases, existing information suggests that, relative to other sources of compensation such as health insurance, welfare systems, and Worker Compensation, that is not case. For example, the number of product-related injuries is many times the number of claims

made. Furthermore, there is little precise information as to what percentage of persons who file claims actually recover full compensation.

Analysis

Preliminary data available from the ISO Closed Claim Survey indicate that approximately 70 percent of the claimants received a payment⁸⁰ from insurance companies under product liability policies. Seventy-five percent of the claimants receiving a product liability insurance payment obtained an amount equal to or exceeding their "economic losses," defined as medical expenses, wage losses, and out-of-pocket expenses other than legal fees.⁸¹

In contrast to the above, the available data suggest that persons who litigate their case to a final verdict are confronted by a great deal of uncertainty.⁸² Thus, more than 50 percent of those persons recover no damages. On the other hand, the plaintiffs who do recover damages in a litigated case recover more on the average than those who settle their claim.⁸³

Finally, with respect to cases that require litigation (either because liability or the amount of damages is irrevocably in dispute), it should be noted that some persons with smaller claims may not be able to obtain the services of an attorney. We have no data on this point, but experienced plaintiffs' attorneys have made this observation⁸⁴ and do not appear to have been disputed on the matter.

THE RELATIONSHIP BETWEEN PRODUCT LIABILITY CLAIMS AND PRODUCT ACCIDENTS

Introduction

The Briefing Report indicated that the rate of increase in product liability claims appears to have been rising in excess of the rate of the increase in actual product injuries. The significance of this finding relates to the causes of the product liability problem: it suggests that the problem is not due to an increase in the number of product-related accidents.

The finding was based on a preliminary draft of the Industry Study. While subsequent information has reaffirmed the finding, it also suggests that some emphasis be placed on the limitations on the data that support it. The finding would appear to be firmer in regard to workplace products than consumer products.

Analysis

Workplace Product-Related Injuries

The Industry Study concluded that there was no apparent trend in the frequency or severity of workplace injuries from 1966 to 1972 among the industrial products selected by the Task Force for study which would explain any increase in the number of claims and lawsuits against product manufacturers. See Industry Study at I-12, III-2. The industry contractor based its conclusion upon an analysis of Worker Compensation cases closed during that period in the State of New York. Id. at III-14 - III-22. That analysis found no significant increase in the number of cases closed, the number of weeks of compensation awarded, or the total compensation awarded -- both in the aggregate and for each target product class. Id. (The Industry Study utilized data on the number of weeks and total amount of compensation awarded as surrogates for measuring trends in injury severity).

The Industry Study's conclusion regarding injury frequency is supported by Bureau of Labor Statistics ("BLS") estimates of the number of work-related illnesses and injuries which occur annually in the United States. These estimates are based upon surveys conducted at the state level which include the experience of approximately 65 million workers in the private sector. They include all work-related illnesses and injuries -- as opposed to just product-related injuries -- requiring medical treatment; involving loss of time on the job, loss of consciousness, transfers to another job, restrictions on work or motion, or termination of employment; or causing fatalities. The estimates show a decline in the number of work-related illnesses and injuries from 1972 to 1975 of 12 percent.

Estimates of Number of Work-Related Illnesses
and Injuries (as defined above)

<u>1971 (last six months only)</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>	<u>1975</u>
2,934,400	5,656,700	6,078,700	5,915,800	4,983,100

Source: Bureau of Labor Statistics, U.S. Department of Labor. (Data unavailable prior to second half of 1971).⁸⁵

The BLS estimates support the industry contractor's conclusion that no trend in the frequency of workplace injuries exists which explains any increase in the number of claims arising out of the workplace.

It should be noted, however, that there are several limitations to the industry contractor's conclusion. First, it identified trends in workplace injuries on the basis of data supplied by the New York State Department of Labor. These data may not be representative of national trends.⁸⁶

Second, it should also be noted that the industry contractor examined data relating to Worker Compensation cases closed from 1966 through 1972 only. Those data may not be relevant to trends in the number of injuries occurring or product liability claims made recently.^{86a}

Third, there may be insufficient data presented to support the Industry Study's conclusions as to injury trends. Regarding the frequency of workplace injuries, the industry contractor relied upon only the number of compensation cases closed in both 1971 and 1972 and the average number of cases closed annually during the period from 1966 through 1970 in order to identify a trend. See Industry Study, Table III-3 at III-15. With respect to injury severity, data are presented for only two years, 1971 and 1972. See Id. at III-15, III-17.

Consumer Product-Related Injuries

According to data compiled by the Consumer Product Safety Commission ("CPSC"), the total number of product-related injuries suffered by consumers did not increase significantly during the period from 1973 through 1975. Furthermore, the severity of those injuries remained stable during that period. The number of injuries associated with some target consumer products, whose manufacturers have reported difficulties in obtaining affordable products coverage, however, has increased. For example, from 1974 to 1975 the number of injuries associated with the following products increased as indicated: drugs, 23 percent; lawnmowers, 29 percent; sporting goods, 36 percent; and medical devices, 50 percent. See Industry Study, Table III-7 at III-27.^{86b}

Through its National Electronic Injury Surveillance System ("NEISS"), the CPSC collects data from 119 hospital emergency rooms concerning injuries associated with consumer products. Those data include information on injury frequency and severity for 950 product categories. See Industry Study at III-22 for a more complete description of NEISS.

The NEISS data on injury frequency for all injuries reported during the period from 1973 through 1976 are set forth below.

NEISS Data on Injuries Associated With Consumer Products

<u>Fiscal Year</u>	<u>Total Number of Injuries Reported</u>
1973	294,702
1974	316,981
1975	339,419
1976	412,000

Source: U.S. Consumer Product Safety Commission.

Although there was a 40 percent increase in the total number of injuries reported to NEISS from 1973 through 1976 (fiscal year) period, the Industry Study concluded that overall there has

been no significant increase in the number of injuries associated with consumer products. Id. at III-23. This conclusion was based upon the fact that certain improvements have been made in the NEISS reporting system⁸⁷ which, according to the CPSC, account for much of this increase.

The Industry Study also found that, based on NEISS data, injury severity decreases slightly from 1973 through 1975 (calendar years). Id., Table III-7 at III-27.

As noted above, the NEISS data are limited to injuries which required emergency room treatment. Many injuries are treated outside that system through health clinics, private doctors, etc. Also, data on fatalities are not included. It may be that the NEISS data do not accurately reflect trends in consumer product injuries. On the other hand, the increases in injuries associated with certain products may explain in part the substantial increases in product liability insurance premiums reported by companies producing those products⁸⁸. See p. VI-17 et. seq.

WORKER COMPENSATION SYSTEMS

Introduction

The Briefing Report observed that because some workers, by lawsuit, can shift the cost of a work-related accident from their employers on to manufacturers of industrial products, economic pressure on Worker Compensation is alleviated to some extent.

Analysis of the final version of the Industry Report and other information that has come to the attention of the Task Force permits us to expand upon this finding and the relationship of Worker Compensation to product liability.

First, some persons injured by products in the workplace are supplementing their Worker Compensation recovery through product liability suits.

Second, Worker Compensation insurers and self-insuring manufacturers or distributors are able to recoup some of their injury compensation costs through subrogation. Although a number

of undocumented assertions have been made to the contrary, the amount recovered in these subrogation actions does not appear to be significant relative to the total amount paid out by Worker Compensation insurers. One can not generalize as to whether employers who purchase Worker Compensation insurance benefit (through a reduction or leveling of their Worker Compensation premiums) from these subrogation actions. With respect to those who self-insure, the system could reduce incentives for workplace safety.

Third, according to some representatives of insurance industry, product-related accidents in the workplace have been a significant cause of the rise in product liability premium increases incurred by manufacturers of industrial equipment.

Analysis

Employee Product Liability Litigation

Some employees who are injured in product-related accidents in the workplace are able to augment substantially the benefits available from Worker Compensation through product liability litigation. This additional compensation could, in theory, have the effect of diminishing the economic and political pressures for increasing Worker Compensation benefit schedules, which, in turn, may lessen the need for increased Worker Compensation insurance premiums.

Normally, when an employee is injured in a workplace accident, that person is paid benefits according to the statutory benefit schedule of the Worker Compensation system of the state in which he is employed. The statutory schedules typically provide for benefits which are smaller than the damages which are potentially recoverable in the tort-litigation system.⁸⁹ For example, injured employees are usually not fully compensated for their pecuniary losses; nor are they directly compensated for pain and suffering.⁹⁰ In fact, despite significant gains in benefit levels, the benefit schedules in effect in many states remain well below the levels recommended by the⁹¹ National Commission on State Workmen Compensation Laws in 1972.

An employee injured in a product-related accident in the workplace has a chance to increase these benefits by bringing a claim against the manufacturer of the product that injured him. Because of the contingent fee system, he⁹² may exercise this opportunity at little or no cost to himself.

Employees in this position are having an impact on product liability insurance. First, some surveys suggest that more injured employees are resorting to product liability litigation.⁹³ Second, preliminary data from the ISO Closed Claim Survey indicate that approximately 50 percent of the total insurance payments for product liability were made to employees injured in workplace accidents.⁹⁴ Third, company claims adjusters reporting to ISO believe that approximately 30 percent of those payments were made for injuries which may have been caused, in part, by employer negligence. Nevertheless, the employers were not brought into the action⁹⁵ because most states grant them immunity from this type of suit.

It should be realized, however, that the number of successful product liability claims brought by workers is a small percentage of the total number of workplace injuries.⁹⁶ Therefore, it is not possible to conclude that the possibility of these suits has lessened economic or political pressure for increasing Worker Compensation statutory benefit schedules.

On the other hand, some observers have asserted that an increase in Worker Compensation benefit levels would reduce the number of⁹⁷ product liability claims that arise out of workplace accidents. There are no data to support this assertion. The little evidence that is available suggests that the two phenomena are independent variables within certain ranges of benefit levels.⁹⁸ To the extent that they are independent, an increase in benefit levels would not be an effective means of reducing the number of workplace product liability claims against manufacturers.

This suggests that if it is desired to reduce the number of product liability claims against manufacturers of industrial goods, other alternative remedies must be considered. One such alternative would be to make Worker Compensation a sole source remedy for persons injured by products in the workplace. This

report provides an analysis of that alternative at pp. VII-103 - 112. One must also consider whether product manufacturers should be given the right to place an appropriate portion of the tort law costs of a product-related accident on a negligent employer. While this would not reduce the number of workplace product liability claims, it would prevent the employer from being able to externalize the cost of a work-related product injury. An analysis of this proposal is at p. VII-70 et. seq.

Subrogation

Subrogation is the right of a party who has paid the losses of an injured person to sue, or otherwise be reimbursed by, a third party who is responsible under tort law for the injury in question.⁹⁹

Subrogation may affect Worker Compensation insurance by enabling some employers who self-insure with respect to Worker Compensation and Worker Compensation insurance carriers to shift some of the cost of compensating injured employees to product manufacturers and their product liability carriers.^{99a} Under the law of most states, this can occur even though the employer's negligence contributed to the happening of the accident. See p. VII-97.

There is little information regarding the aggregate costs shifted from the Worker Compensation system to product liability through subrogation. A survey completed in 1976 by Teknekron, Inc., on behalf of the Interdepartmental Task Force on Workers' Compensation, indicates that the insurance carriers surveyed subrogated between two and three percent of all Worker Compensation loss payouts during the period from 1971 to 1973: these percentages are not limited to subrogation of product liability lawsuits. Nevertheless, applying them to the Teknekron estimate of \$3.2 billion in total Worker Compensation payments in 1975, the total amount of subrogation in 1975 for all workplace injuries would be between \$64 million and \$96 million.¹⁰⁰ Unfortunately, there are no data available which indicate the total costs actually shifted to product manufacturers and their product liability insurance carriers through Worker Compensation-related subrogation.

Two other surveys indicate that the impact of subrogation upon Worker Compensation insurance premiums may be limited. First, according to an estimate derived from the California Worker Compensation Study, product-related workplace injuries may represent only 28 percent of all Worker Compensation claims¹⁰¹. Therefore, subrogation in product liability would not be available with respect to the costs incurred in approximately 72 percent of Worker Compensation claims. That study did not indicate what percentage of the product-related claims were actually subrogated or what the total amount of subrogated costs was. Second, the AMIA Survey of large (\$100,000+) claims closed during 1975 found that only a small percentage -- five percent -- of the total product liability payments analyzed in that survey were successfully subrogated.¹⁰²

It is a matter of conjecture as to what percentage of the total Worker Compensation costs are shifted through subrogation to product liability. It would seem from the foregoing data that the implicit subsidy of Worker Compensation premiums through product liability subrogation is not major.¹⁰³ Nevertheless, in a limited sphere, subrogation claims increase friction costs. Also, under the law in a majority of states, Worker Compensation insurance carriers (and self-insuring employers) may be able to externalize the cost of a product-related accident brought about, in part, by negligent conduct on the part of the employer. Remedies that would modify subrogation rights of Worker Compensation carriers are analyzed at p. VII-95 at p. 77 et. seq.

PRODUCT LIABILITY LOSS PREVENTION

Introduction

Prior to our study, some sources had observed that the tort-litigation system probably has had little or no effect on manufacturers or insurers with respect to product liability loss prevention. The Briefing Report found to the contrary: the tort-litigation system and increased product liability insurance premiums have caused a number of manufacturers and insurers to devote more time and resources to product liability prevention.

The final version of the Industry Study and other information that has come to the attention of the Task Force reaffirms this finding and also permits a more precise description of the nature and scope of this impact.

In that regard, the data show that a much higher percentage of large companies have implemented formal product liability loss prevention programs than small firms. Also, insurers appear more willing and able to provide product liability advice to large rather than small insureds -- some small loss prevention firms received no assistance in 1975 and 1976. In spite of all this, many small insureds are concerned and utilize product liability loss prevention techniques.

Although product liability loss prevention appears to be more important to an increasing number companies, there are some manufacturers in some industries that could improve in this area. As discussed at length in Chapter I, we have identified unsafe manufacturing practices as one of the principal causes of the product liability problem. We analyze what insurers, government and manufacturers can do to correct these practices at p. VII-172 et. seq.

We note that some manufacturers believe that there is no relationship between their investment in product liability loss prevention and a reduction or leveling of their product liability insurance premiums. We discuss this problem at p. VII-177.

Although product liability problems have not provided an incentive for all manufacturers to devote more attention to product liability loss prevention, policymakers must be cautious not to undermine rational incentives that do exist.

An analysis of the data and other information we have collected regarding manufacturers' and insurers' efforts at product liability prevention follows.

Analysis

Product Manufacturers' Loss Prevention Programs

The product liability loss prevention programs of the firms responding to the Industry Study telephone survey have been described in Chapter IV. See p. IV-3 et. seq. That survey suggested that firms vary as to their perceptions of what constitutes such a loss prevention program -- as opposed to the ordinary manufacturing practices -- and of which elements of those programs are most effective in minimizing their product liability. For example, while some small businesses are more sensitive to the need for product liability loss prevention techniques than larger ones, the telephone survey indicated that the percentages of firms which assessed the impact of "product design and engineering" and "product manufacturing and quality control" as being "not applicable" to or of little impact upon product safety were inversely related to firm size.¹⁰⁴

The Industry Study's telephone survey also indicated that some firms have implemented what they consider to be special loss prevention programs. Thirty-seven percent of the firms surveyed indicated that they had special programs to reduce their product liability claims.^{104a} Another 18 percent of the responding firms stated that they were considering implementing such programs.¹⁰⁵ Large firms were much more likely to have implemented such programs than small firms, as is evident from the following program adoption rates: small firms, 19.4 percent; medium-sized firms, 38.7 percent; and large firms, 51.3 percent.¹⁰⁶ Seventy percent of the firms with such programs indicated that they had started the programs prior to 1974.¹⁰⁷

The most common approaches undertaken in these special programs were: (1) augmented quality control, (2) improved labeling, and (3) product redesign.¹⁰⁸ These three techniques were also viewed as having a significant impact on product safety.¹⁰⁹

A high percentage of firms in certain industries, such as industrial machinery, have recognized the need for implementing a special program directed at product liability loss prevention and for giving that program the full support of top management. For

example, the MAPI Survey found that 79 percent of the responding firms have assigned specific responsibility for product liability to an individual or ad hoc committee.¹¹⁰ Furthermore, in the vast majority of cases, that individual or committee reported directly to a member of senior management.¹¹¹

It should be noted that the threat of large product liability judgments may also have caused a shift in the focus of industry research and development programs toward product liability loss prevention techniques. However, further research would be necessary to confirm this hypothesis.¹¹²

While these general trends exist, we cannot describe the exact effect the tort-litigation system is having upon product safety.

First, it is difficult on the basis of surveys to distinguish real increases in the commitment of product manufacturers to product liability loss prevention from perceived changes in that commitment. It may be that some routine tasks, such as product design, which have always been performed to some degree as a necessary part of the manufacturing process, are now recognized as being product liability loss prevention techniques. This applies as well to the firms which have implemented "special" loss prevention programs. Thus, it may be that company perceptions of routine tasks, as well as company loss prevention programs, have changed.¹¹³

Second, our data do not provide an exact measure of the resources allocated to product liability loss prevention programs firm by firm over an extended period of time.

Third, qualitative differences in loss prevention programs are not easily measured. For example, the fact that a company has such a program does not indicate that program's effectiveness or the relative importance of loss prevention considerations in management decisions.

In sum, the overall picture is one showing the tort system and rising product liability premiums as having a positive impact on product liability loss prevention, but it is not possible to quantify the amount on an industry-wide basis.

Insurance Company Loss Prevention Services

Many insurance companies state that they have increased their efforts to provide product liability prevention advice to their insureds. These services are usually provided as part of the underwriting process.¹¹⁴

Not all insureds, however, receive specific insurance company loss prevention services. The Industry Study's telephone survey found that only 68 percent of the firms surveyed which carried product liability insurance had been inspected by insurance company loss prevention engineers in 1975 or 1976.¹¹⁵ Of the 195 firms which had been inspected, only 82 (42 percent) reported that their carriers had made specific recommendations for reducing claims. Thus, 71 percent of the 286 firms surveyed with product liability coverage did not receive any specific product liability loss prevention advice from their carriers during that 1975-1976 period.¹¹⁶

Furthermore, both the Industry and Insurance Studies found that small businesses were less likely to be inspected by their insurers than were large firms. The Industry Study's telephone survey found that only 54 percent of the small firms surveyed with product liability coverage had been inspected during the 1975-1976 period.¹¹⁷

The underwriting file survey conducted by the insurance contractor also showed that a higher percentage of large firms are inspected than are small firms. The insurance contractor, however, concluded from its interviews with insurance company officials that this imbalance is being corrected.¹¹⁸

Thus, it appears that small firms, some of which lack the financial resources or technical knowledge to implement adequate product liability loss prevention programs on their own, are receiving fewer product liability loss preventive services than are large firms.¹¹⁹

Perhaps the most interesting information reported regarding the impact of insurance company efforts in this area are the results of the selected firm interviews conducted by the industry contractor. Those interviews indicated that: (1) the insurance

carriers of the 20 firms surveyed made no recommendations regarding product safety and manufacturing processes; and (2) perhaps more importantly, the surveyed firms perceived no demonstrable relationship between their loss prevention programs and their product liability insurance costs.¹²⁰ The insurance contractor observed that insurance companies do occasionally consider the product liability prevention techniques of would-be insureds, among other factors, in making their underwriting decisions.¹²¹

The perceptions reported during the selected firm interviews, though statistically insignificant, are important because they suggest that insurance companies may be able to be of more assistance with regard to their insureds' loss prevention programs. Also, where manufacturers do not perceive that investment in product safety will earn a satisfactory return through cost savings, they may be disinclined to devote substantial time and resources to product liability loss prevention. While insurance costs are only one element of the potential savings from such investments, the lack of any perceived correlation between these two variables may be indicative of the need for modification of the present insurance rating system. See p. VII-177 for an analysis of remedial proposals that address this problem.

SUMMARY OF CONCLUSIONS

Availability of Product Liability Insurance

Total Unavailability

There is no widespread problem of product liability insurance being unavailable. A few companies in our target industries and other high-risk product lines are having difficulty obtaining product liability insurance. For some others, product liability rates would appear to be unaffordable -- it has been persuasively argued to the Task Force that this is a practical equivalent of unavailability.

Partial Unavailability

Policy limitations

Policy limitations that insurance companies have been willing to offer for products coverage do not appear to have changed significantly since 1971. Thus, insurance companies are not forcing insureds to retain more risk by reducing the amount of coverage that they are willing to make available. On the other hand, some underwriters are reluctant to increase the limits of liability for existing coverage. Thus, some manufacturers whose products' risk exposure appears to be increasing may be unable to protect themselves against that increase by raising the limits of their products' coverage.

Coverage restrictions

Task Force information sources were not wholly in accord on the question of whether coverage restrictions were increasing. The Industry Study found restrictions on products coverage to be more prevalent than the Insurance Study, which concluded that coverage exclusions are rarely imposed by insurance companies. Major product liability insurers appear to be willing to write coverage for most product lines. Smaller insurance companies may exclude some very high-risk products from their General Comprehensive Liability coverage.

Deductibles

Deductibles appear to be increasingly prevalent among our target industry groups. Furthermore, the levels of deductibles appear to have increased significantly between 1975 and 1976 for both large- and medium-sized firms in our target industry groups. This increase in the frequency and level of deductibles may be a matter of choice on the part of insureds rather than a requirement of the insurance companies.

Affordability of Product Liability Insurance

As It Affects Insureds

There has been a substantial increase in the cost of product liability insurance since 1974 in all of the Task Force's target industries. The increase in premiums appears to have been

greater for small as compared to large businesses. Also, small firms appear less able to cope with affordability problems than large firms. Certain industries appear to have been subject to very substantial increases. These include manufacturers of medical devices, pharmaceuticals, power lawnmowers, industrial chemicals and metal castings. Anecdotal data show similar impacts on manufacturers of sporting goods and ladders. In some instances manufacturers -- especially of durable goods -- may not be able to pass this increased cost on to their customers.

As It Affects the Price of Products

One cannot readily measure the exact cost of product liability insurance as part of the price of a product. The average cost of product liability insurance is less than one percent of sales in most of the Task Force's target industries, but it is higher for some manufacturers. The total cost of product liability insurance as it affects the price of a product may be above the one percent figure because distributors and retailers may also pass on the cost of their product liability insurance to purchasers. Furthermore, other product liability costs, in addition to product liability premiums, may be reflected in the price of a product.

Product Introduction and Discontinuation

Product liability problems in the pharmaceutical and other high-risk product lines may reinforce trends against new product development with the result that some socially beneficial products may never be developed or may be discontinued. This is especially true for smaller firms. On the other hand, some of the products that are not produced (or are discontinued) may be ones whose potential for causing harm outweighs their social utility. This is an area that deserves further investigation.

Business Failures

Product liability problems do not appear to have been a direct and sole cause of business failures. On the other hand, circumstantial evidence suggests that substantial product liability premium increases may be one of several factors that cause small businesses in high-risk product industries to go out

of business. In the future, some small businesses may be placed in default by product liability judgments.

Trends in the Number of Product Liability Claims

No organization, public or private, currently records all product liability claims or lawsuits. The best "estimate" of the number of product liability claims filed in 1976 is between 60,000 and 70,000. Data are not available that would provide a firm indication of the trends in the number of product liability claims in the 1974-1976 period. In our target industries, the average number of pending claims appears to have increased substantially between 1971 and 1976.

Compensation Obtained by Persons Injured by Products

A small percentage of persons injured by products file product liability claims. There is little information available regarding the compensation obtained by claimants, although, a preliminary closed claim survey suggests that a relatively high percentage receive their medical expenses, wage losses and other out-of-pocket expenses other than legal fees. The preliminary closed claim data and other data sources suggest that less than six percent of product liability claims are litigated to a final court verdict. Of those who litigate cases, less than 50 percent recover any damages.

The Relationship Between Product Liability Claims and Product Accidents

Limited data collected by our Industry Study suggest that any increase in product liability claims in the majority of our target industries is not due to an increase in the number of product-related accidents. This finding appears to be firmer in regard to workplace products than consumer products.

Worker Compensation Systems

Some persons injured by products in the workplace are supplementing their Worker Compensation recovery by the use of product liability suits. Worker Compensation insurers and self-insuring manufacturers or distributors are able to recoup some of

their injury compensation costs through subrogation in product liability claims. These claims would appear to have only a very minor impact on the Worker Compensation system. Insurers stress that workplace accidents and resultant product liability claims have been an important cause of the product liability insurance rate increases that have been generated for industrial products within our target groups.

Product Liability Loss Prevention

The tort-litigation system and increased product liability insurance costs have caused many manufacturers of high-risk products to devote more time and resources to product liability loss prevention; however, a number of such businesses have not done so. Limited data show that a much higher percentage of large, as opposed to small manufacturers, have implemented product liability loss prevention programs. Also, insurers appear to have supplied product liability advice more frequently to large insureds than to small ones. In addition, company executives interviewed by the industry contractor did not perceive a direct correlation between the implementation of product liability loss prevention programs and a reduction in insurance costs.

NOTES TO CHAPTER VI

¹Surveys by the Independent Insurance Agents of America (1976) (identifying 132); The Professional Insurance Agents (1976) (identifying 147).

²This was due in part to the research design of the Insurance Study. For example, the insurance contractor's interviews with underwriters and its underwriting survey did not reveal any hard data on this subject because underwriters typically did not know whether a prospective insured whom they have refused to cover or renew has been able to obtain coverage elsewhere. Its interviews with insurance brokers were also relatively unproductive in producing such evidence. This was due in large measure to the reluctance of brokers to divulge information regarding clients which are "going bare." Insurance Study at 3-6.

³See Id., Exhibit A-1 at 3-7 for a list of products which were cited as those underwritten only after careful scrutiny. Insurers were very reluctant to insure new accounts with hazardous products or to renew policies for insureds with bad loss experience or with products with large loss exposures. Id. at ES-6.

⁴There is an inconsistency in the Insurance Study regarding the number of firms identified by name that could not obtain products coverage because it was either unavailable or unaffordable. The Executive Summary to the Insurance Study states that the number was 62, while Chapter III uses the number 74. Id. at 3-14. According to the Technical Representative of the Contract Officer for the Insurance Study, the correct number is 62.

The various trade associations reported a total of 110 firms without coverage, but they did not identify them. Therefore, there was no way of knowing the extent of any overlap between the two groups. Id. at 3-4 - 3-14.

⁵NFIB Survey, Table 1 at 4.

⁶Id.

⁷See Statement of J. Mack, representing the NMTBA in Hearings on Product Liability Problems Affecting Small Business Before the Senate Select Committee on Small Business, 94th Cong., 2d Sess., pt. 1, at 466 (9/8/76); Letter to Task Force from FEMA (10/21/76).

⁸Id. (unspecified number of NMTBA members); Letter to Task Force from FEMA (10/21/76) (eight percent of 226 usable responses).

⁹See Insurance Study at 3-11. See also Statement of Judge Ned Price, Advisory Committee on Product Liability, Fourth Meeting, p. 32 (6/27/77).

¹⁰See Statement of Lester L. Rawls, Commissioner of Insurance of the State of Oregon and the President of the NAIC, in Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess., pp. 20-21 (6/30/77).

¹¹Id. In addition, the Missouri Division of Insurance conducted a survey which indicated that, as of August 2, 1976, the vast majority (85 percent) of the 146 insurance carriers which write products coverage in Missouri were willing to write new products coverage and to renew existing coverage. See Letter to American Mutual Insurance Alliance from Texas State Board of Insurance (8/26/76) (describes results of Missouri's survey). The Commissioner of Insurance of Missouri concluded from that survey that there was no product liability insurance availability problem in Missouri at that time.

¹²See Remarks of D. McNamara, Advisory Committee on Product Liability, Fourth Meeting, p. 35 (6/27/77).

¹³See Remarks of J. Mack, Id., at 35-36; Statement of Lester Rawls, supra at 21.

¹⁴As was described in the preceding discussion, the insurance contractor was able to identify only 62 companies by name that did not have products coverage because of its unavailability or prohibitive cost. Its sources of information included the correspondence received by the Task Force prior to the completion of the Insurance Study.

¹⁵See Transcripts, Advisory Committee on Product Liability, Third and Fourth Meetings (1/11/77, 6/27/77).

¹⁶See Industry Study at IV-36, and Table IV-16 at IV-38.

¹⁷Id., Table IV-37 at IV-70.

¹⁸Insurance Study at 3-12.

¹⁹See Remarks of Robert Clements, Senior Vice President, Marsh and McLennan, Inc., Advisory Committee on Product Liability, Second Meeting, pp. 21-22 (11/1/76), and Fourth Meeting, p. 47 (6/27/77).

²⁰For example, see Letter to Task Force dated 1/31/77 (manufacturer of medical equipment which has been unable to get more than \$1 million in products coverage--a level its president considers to be inadequate).

²¹The Machine and Allied Products Institute's 1976 Survey reported that 159 of the 173 respondent companies, or 92 percent, considered their coverage to be adequate. See MAPI Survey at 19.

²²1976 Survey conducted by the Kansas State Insurance Department on the subject of the availability of product liability insurance.

²³In three of those files, however, the excluded products were covered by separate policies. Insurance Study at 1-15, 3-11 - 12. More generally, it found very little variation in the products coverage offered. Id. at 3-11 - 13.

²⁴Id. at 3-6 - 7.

²⁵See Industry Study, Table IV-18 at IV-41.

²⁶See Responses of the respective companies to Questions propounded by the Subcommittee on Capital, Investment and Business Opportunities of the House Small Business Committee; Responses: Hartford, p. 14 (6/28/77); Liberty Mutual, p. 12 (6/28/77); St. Paul, p. 3 (6/20/77); Crum and Foster, p. 7 (7/15/77).

²⁷Responses to Questions of the Subcommittee on Capital, Investment and Business Opportunities of the House Committee on Small Business submitted by the Hartford Insurance Group, p. 16 (6/28/77) and by Liberty Mutual Insurance Company, pp. 14-15 (6/28/77).

²⁸Id.

²⁹NMTBA Survey at C-87.

³⁰Id. at C-92.

^{30a}Id. at C-87.

^{30b}Id. at C-92.

³¹See Industry Study, Table IV-15 at IV-37; or Chapter III of this report, Table III-9 and p. III-12.

³²MAPI Survey at 21. The term "Retrospective retention" refers to the rating plans which provide for the adjustment of the current policy premium to reflect losses incurred during the term of the policy. See Insurance Study at 1-30.

³³See Chapter III of this report at III-10 - 12; Industry Study at IV-29 - IV-40, IV-72 - IV-74.

^{33a}For example, see Statement of Howard J. Bruns, President, Sporting Goods Manufacturers Association, Hearings on Product

Liability Problems Affecting Small Business before the Senate Select Committee on Small Business, 94th Cong., 2d Sess., pt. 1, p. 532 (1976) (premium increases of 450 percent in 1975 for manufacturers of equipment for sports teams); Statement of Harold B. Halter, Executive Vice President, Farm Equipment Manufacturers Association, *Id.*, pt. 1A, p. 1417 (1976) (300 percent increase in last 12 months in premiums paid by members responding to its survey).

Since the publication of the Briefing Report, information was brought to the attention of the Task Force suggesting that some wholesaler-distributors of products have experienced increases in product liability premiums. This is an important development because of the pyramidal effect it can create on the cost of products for consumers. See Chapter VI, p. 7.

³⁴The analysis for a firm which sells more than one product is substantially more complex, but its objectives are the same as for a single-product firm.

³⁵See Remarks of Joseph McEwen, Advisory Committee on Product Liability, Fourth Meeting, p. 25 (6/27/77); letter to Task Force from Mr. McEwen (9/2/77).

³⁶As explained in the Insurance Study, the term "manually-rated" means that these product categories are rated according to the rate manual published by ISO. See Insurance Study at 1-36.

³⁷The amount of coverage provided for in Exhibit V-6 of Chapter V differs from that used by the insurance contractor in its calculations of applied rates as a percentage of sales. (Exhibits C-1 and C-2 of the Insurance Study). Therefore, the number of product categories whose rates exceed one percent of sales, as set forth in Exhibit V-6 of Chapter V, cannot be compared with the data in Exhibits C-1 and C-2.

^{37a}Statement of Philip H. Dutter, McKinsey & Co., Inc., Transcript of Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess., pp. 245-46 (6/6/77).

³⁸See Responses to Questions of the Subcommittee on Capital, Investment and Business Opportunities of the House Committee on Small Business submitted by the Hartford Insurance Group, pp. 9-10 (6/28/77), and by Liberty Mutual Insurance Company, p. 8 (6/28/77). For a more detailed discussion of the subjective nature of the underwriting process, see Insurance Study at 1-21 - 1-40.

³⁹See Statement of M. Walters, Vice President, Government and Industry Relations, ISO, in Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital,

Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess., pp. 14-15 (6/6/77).

The Task Force staff attempted to match the data on rates and premiums provided by the insurance and industry contractors in order to ascertain the extent to which ISO manual and (a) rates were reflected in actual premiums paid by firms in the target industries, but was not able to establish a meaningful correlation.

⁴⁰Insurance Study at 2-30; also see Remarks of Mr. Charles Derr (representing MAPI), Advisory Committee on Product Liability, Fourth Meeting, pp. 38-39 (6/27/77).

⁴¹The summary of these surveys appearing in Chapter I of the Industry Study is inconsistent with these figures and should be considered erroneous. See Id. at I-6.

⁴²This total includes 26 letters received by the Office of the Ombudsman of the Department of Commerce prior to the formation of the Task Force, and 36 letters received by the Senate Select Committee on Small Business and forwarded to the Task Force for analysis.

⁴³Other examples include:

-A manufacturer of power mowers who found affordable products coverage to be unavailable in 1976 after its product liability premium increased by 600 percent in one year in 1975. Letter to Task Force (11/2/76).

-A manufacturer of small gas turbine engines which are used as aircraft components has been unable to obtain a premium quotation of less than three percent of sales. Letter to Task Force (9/17/76).

-A manufacturer of commercial cooking appliances with under \$1 million in sales had its 1976 premium for products coverage increase 445 percent in one year. Letter to Task Force (10/7/76).

-A sporting goods company reported that its 1977 premium for products coverage increased by 358 percent over its 1976 level--a total increase in premium since 1975 of 2,100 percent. Letter to Under Secretary of Commerce (6/21/77).

-A manufacturer of respirators for hospitals was confronted with a 1977 premium increase of 447 percent. Memorandum for San Francisco District Office Director from Michael A. Donohue, Trade Specialist, U.S. Department of Commerce (7/77).

⁴⁴See Transcript, Advisory Committee on Product Liability, Third Meeting (1/11/77).

⁴⁵See Remarks of Frederick Juer, Advisory Committee on Product Liability, Second Meeting, p. 18 (11/1/76), and Third Meeting, pp. 58-60 (1/11/77) (impact on small businesses in sporting goods industry--some firms pay up to eight percent of sales). Remarks of James Mack, Advisory Committee on Product Liability, Fourth Meeting, pp. 43-45 (6/27/77) (impact of so-called "long-tail" problem upon manufacturers of durable goods).

The impact of product liability premium increases upon small businesses is discussed later in this chapter. See p. VI-20 et. seq. For a discussion of the impact of product liability upon manufacturers of durable goods, see p. VI-27.

⁴⁶See Remarks of J. McEwen, Advisory Committee on Product Liability, Third Meeting, pp. 41-42 (1/11/77). See also the discussion of the impact of product liability upon the cost of products. See p. VI-27.

⁴⁷The average premium for the member firms of NMTBA have increased 86 percent in 1977 over the 1976 level. This represents a total increase of 230 percent since 1975 and of 1,221 percent since 1970. See Remarks of J. Mack, Advisory Committee on Product Liability, Fourth Meeting, p. 99 (6/27/77).

⁴⁸See Remarks of Joseph McEwen, Advisory Committee on Product Liability, Fourth Meeting, pp. 23-24 (6/27/77).

⁴⁹For example, Mr. Robert Clements, Senior Vice President of Marsh & McLennan, Inc., informed the Advisory Committee that, while rates for products coverage for most firms are well below one percent of sales, those rates "may even approach 10 percent of sales" for some small companies. See Remarks of R. Clements, Advisory Committee on Product Liability, Second Meeting, p. 20 (11/1/76).

⁵⁰See Statement of Lester L. Rawls, President of the NAIC, in Hearings on Product Liability Insurance Premium Increases, Before the Subcommittee on Capital, Investment and Business Opportunities of the House Committee on Small Business, pp. 20-21, 29-30 (6/30/77).

^{50a}The results of the trade association surveys analyzed by the industry contractor also show the affordability problem to be greater for small companies. Industry Study at IV-8 - IV-9. One of those trade association surveys, however, found that the affordability problem was most severe for its member firms with sales of between \$5 and \$15 million. NMTBA Survey at C-87. According to the NMTBA Survey, the average machine tool builder of this size paid premiums of between \$12.3 and \$19.2 per

thousand dollars in sales, compared to the cost of \$7.5 per thousand dollars paid by small member firms. Id. This phenomenon was especially apparent for the 15 metal-forming firms responding to the NMTBA Survey. The average cost per thousand dollars in sales for these firms by firm size was:

<u>Total Sales</u> <u>(in millions)</u>	<u>Average Cost</u> <u>per Thousand</u> <u>Dollars of Sales</u>
Less than \$2.5	\$3.95
\$2.5 to \$5	\$10.22
\$5 to \$15	\$29.53
Over \$15	\$6.55

Source: NMTBA Survey, Supplement B, at C-92.

⁵¹See Statement of John K. Dane, Vice President and General Counsel, Liberty Mutual Insurance Company, in Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess. (6/28/77).

^{51a}Id. The Task Force found that large firms receive more loss prevention advice than smaller firms. See p. VI-51.

⁵²See Responses to Questions of the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, submitted by the Hartford Insurance Group, p. 14 (6/28/77). This perception could add to both the affordability and availability problems of small firms.

⁵³Insurance Study at 1-24.

⁵⁴See Remarks of Mr. Madden (representing Eli Lilly & Co.), Advisory Committee on Product Liability, Second Meeting, p. 17 (11/1/76).

⁵⁵See Remarks of R. Baldwin, Advisory Committee on Product Liability, Third Meeting, -. 43 (1/11/77) (premiums for products coverage comprise 10.4 percent of the price of machine tools sold by his firm); Remarks of F. Juer, Id. at pp. 58-59 (1/11/77) (premiums for products coverage comprise 15 percent of sales price of some sporting goods).

⁵⁶See Volume III, Legal Study at p. 74; also see Remarks of Joseph McEwen, Advisory Committee on Product Liability, Fourth Meeting, pp. 23-25 (6/27/77).

⁵⁷See Remarks of Charles Stewart, Advisory Committee on Product Liability, Third Meeting, pp. 92-93 (1/11/77); also see

Remarks of Joseph McEwen, Id., Fourth Meeting, pp. 23-25 (6/27/77); MAPI Survey at pp. 23-24.

⁵⁸Joint Statement of Hon. Charles W. Whalen, Jr., Hon. Edward W. Pattison, Hon. Donald J. Pease, Hon. Joel Pritchard, and Hon. Newton I. Steers, Jr., Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital, Investment, and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess. (April 4, 1977).

^{58a}The discussion of the swine flu situation which follows attempts to describe the events as they occurred. The Task Force advances no opinion as to whether the conduct of the pharmaceutical and insurance companies was justifiable.

⁵⁹See pp. VII-29 - 32.

⁶⁰The National Swine Flu Immunization Program, as enacted, provides that the exclusive remedy for personal injury or death arising out of the swine flu program is against the Federal government under the Federal Tort Claim Act (28 U.S.C. §1346 (b) (1970)). National Swine Flu Immunization Program of 1976, P.L. No. 94-380 (Aug. 12, 1976). The Federal government, in turn, has the right to recover all or any portion of the damages it pays which are attributable to the negligence of any program participant, including any participating pharmaceutical company.

⁶¹Pharmaceuticals, 613 percent; medical devices, 389 percent. See chapter VI, (See Industry Study, Table IV-13 at IV-34).

⁶²See Letter to the Task Force, (1/14/77). The writer predicted that either his company would fail due to a lack of adequate coverage or it would become a target for acquisition by a larger company better able to assume the risks involved in developing and marketing highly innovative medical devices.

⁶³See Letter to the Task Force (1/31/77).

⁶⁴In that regard, see Comments of Mr. Richard D. Wood, Transcript, Advisory Committee on Product Liability, Third Meeting, pp. 78-79 (1/11/77).

⁶⁵This impact was suggested by correspondence received by the Task Force and by the NFIB Survey. See Letter to Task Force (1/14/77); NFIB Survey at 10-11. Survey at 10-11.

⁶⁶Those industries were SIC's 28-30, Chemicals, Petroleum, Rubber and Plastics; and SIC's 34-37, Fabricated Metal Products, Tools and Machinery). See NFIB Survey, Table 15, at 11.

⁶⁷For a discussion of the effect of product liability upon business survival, see NFIB Survey at 11; Letter to Task Force (1/14/77); pp. VI-32 - 35.

⁶⁸For example, see Statements of Mr. Richard Tittle, President of Micro Metals, Inc., representing the National Small Business Association, and R. Baldwin, representing the woodworking machinery manufacturers (also a member of the Product Liability Advisory Committee to the Under Secretary of Commerce), in Hearings on Product Liability Problems Affecting Small Business Before the Senate Select Committee on Small Business, 94th Cong., 2d Sess., pt. 1, at 3, 511 (1976); Statement of Harold B. Halter, Executive Vice President, Farm Equipment Mfgs. Assn., Id., pt. 2, at 1417 (1976) (21 percent of members perceive product liability as being a threat to their continued survival); Transcripts, Advisory Committee on Product Liability, First Meeting, pp. 58-67 (9/20/76), and Second Meeting, p. 87 (11/1/76).

⁶⁹See Id.; Letter to Secretary of Commerce (8/31/76) (industrial machinery manufacturer with minimum 1976 premium of \$26,520 for \$1.3 million in sales--an increase of over 1,800 percent above 1975 premium which reduced profits by 50 percent; Letter to Task Force (10/7/76) (industrial machinery manufacturer with premium increase from 1974 to 1976 of 1,700 percent).

⁷⁰See Chapter V, p. 10 et. seq.; Chapter VI, p. 22; Letter to Task Force from machine tool company (1/31/77) (1976 premium equals 12.3 percent of sales).

⁷¹See Letter to Task Force from Messrs. Joseph McEwen and William M. Brooks, members of the Product Liability Advisory Committee to the Under Secretary of Commerce (6/27/77).

⁷²See Wall Street Journal, p. 1, Col. 3 (6/3/76).

⁷³For example, see testimony of Howard J. Bruns, President of Sporting Goods Manufacturers Association, Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess. (4/18/77); Letter to Task Force from R. Baldwin (6/21/77) (names of seven additional companies which have allegedly been forced out of business by product liability).

⁷⁴Our data on this issue are further developed in Chapter VII at p. 151.

⁷⁵E.g., Forbes, at 57 (8/1/76) (Frederick Watkins of Aetna Insurance Co. estimated one million such lawsuits were filed in 1975); Wall Street Journal, p. 4, col. 12 (10/27/76) (cites Conference Board estimate of one million suits); Statement of Richard Tittle, President of Micro Metals, Inc., in Hearings on Product Liability Problems Affecting Small Business Before the Senate Select Committee on Small Business, 94th Cong., 2d Sess., pt. 1, p. 4 (September 8, 1976) (estimate of 1.5 million lawsuits filed in 1975).

⁷⁶See Time Magazine, p. 1 (9/12/77). The advertisement stated in part, "No one likes higher prices, but we're telling it straight."

⁷⁷Remarks of R. Nader: Proceedings, First World Congress on Product Liability, p. 184 (1977). Similarly, Robert Begam, President of the Association of Trial Lawyers of America, has stated that the number of product liability lawsuits filed in 1975 was, at most, 38,450. See Trial Magazine, p. 48 (November 1976).

⁷⁸Data on the trends in the number of product liability lawsuits commenced annually was felt to be so important that many urged the Task Force to undertake a survey of courthouse files. The Task Force decided that such a survey would be impractical because of its prohibitive cost and because it would necessarily produce data of little or no significance statistically. Data from the ISO Closed Claim Survey suggest that most product liability claims do not result in lawsuits filed.

⁷⁹See Statement of M. Walters, Vice President, ISO, Before the House Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess., p. 20 (6/6/77).

^{79a}Id. Preliminary data from the ISO Closed Claim Survey indicate that less than six percent of the product liability claims analyzed were litigated to a final court verdict. ISO, 1976 Product Liability Closed Claim Survey: Detailed Analysis of Preliminary Survey Results, p. 94 (December 1976).

^{79b}ISO has reported to the Task Force staff that its Final Closed Claim Survey will show that no lawsuits were commenced with respect to 73 percent of all the closed claims analyzed by ISO.

⁸⁰ISO, 1976 Product Liability Closed Claim Survey: Preliminary Analysis of Survey Results, p. 6 (December 1976).

⁸¹Id., Table 2-1 at 33. ISO did not attempt to analyze the impact of legal fees upon a claimant's ability to recover his full economic losses. The final ISO Closed Claim Survey must be carefully analyzed in regard to changes in these estimates and the methodology relating to how they were compiled. ISO preliminary data indicate that less than 6 percent of product liability claims are litigated to a final verdict.

⁸²See p. II-43 et. seq. (citing results from the Legal Study's review of appellate cases (50%), the Cook County Jury Survey (35%), Downstate Illinois Jury Survey (49%) and the Kansas City Trial Lawyers' Association Survey (36%).)

⁸³Based on a comparison of the results of the preliminary ISO Closed Claim Survey and the Illinois Jury Verdict Survey.

⁸⁴See Remarks of M. Belli, Proceedings, First World Congress on Product Liability, p. 177 (1977).

⁸⁵BLS does not compile data on the number of product-related injuries occurring annually in the workplace. As is noted above, OSHA estimates are not available for the same period for which the New York Worker Compensation data were analyzed by our industry contractor (1966-1972). Finally, BLS data on injury severity were not available.

⁸⁶The data from five other states which are presented in the Industry Study are for 1974 only and provide no trend information. Id. at III-4.

^{86a}The Industry Study also assumes that changes in the number of weeks and amount of compensation awarded are accurate surrogates for determining trends in injury severity. While the Task Force has no information regarding this assumption, there may be economic or other factors which distort the relationship between injury severity and these two surrogates.

^{86b}Similarly, according to FAA data analyzed by the Industry Study, the number of general aviation accidents reported has increased by 82 percent during the period from 1965 to 1974. Industry Study, Table III-8 at III-30. On the other hand, the number of injuries associated with chemicals decreased by 51 percent from 1974 to 1975. Id., Table III-7 at III-27. Furthermore, several of the target consumer products are among the 25 product categories (3 percent of the total number that are monitored) which were associated with approximately 60 percent of all injuries reported through NEISS from 1973 through 1975. Id. at III-23. The target products include pharmaceuticals and lawnmowers, Id., Table III-6 at III-25.

⁸⁷Letter to Task Force staff by William W. Walton, Director of Planning Division, Office of Strategic Planning, CPSC (9/27/77).

⁸⁸It is unclear what portion, if any, of these percentage increases resulted from the improvements in the NEISS reporting system referred to above.

⁸⁹The statutory rationale for the lower benefit levels is that the employee has given up his cause of action in tort against his employer, and the possibility of recovering greater damages, in exchange for the payment of benefits on a no-fault basis through what is intended to be a non-adversarial process. For criticism of the effectiveness of the current benefit delivery system for Worker Compensation, see Workers' Compensation: Is There a Better Way? Report to the President

and the Congress of the Policy Group of the Interdepartmental Workers' Compensation Task Force, pp. 27-29 (1/19/77) ("Worker Compensation Report").

⁹⁰See p. VII-86.

⁹¹Worker Compensation Report, Note 1, supra at pp. 20-23, 39-45.

⁹²See Transcript, Advisory Committee on Product Liability, Third Meeting, pp. 35-36 (1/11/77).

⁹³The surveys conducted by the National Machine Tool Builders' Association, albeit of little statistical significance, indicate that legal actions were brought against machine tool manufacturers with respect to approximately 45 percent of the workplace accidents involving their products in which accident reports were filed. See Industry Study, pp. VI-12, VI-13. Similarly, the American Mutual Insurance Alliance's survey of claims closed during 1975 with total payments exceeding \$100,000 ("AMIA Survey") found that 70 percent of the awards in the 79 claims analyzed involved industrial products. Id. at VI-10.

⁹⁴See ISO Survey, Capsule Analysis, p. 9, and Detailed Analysis, Table 6-2, p. 59 (12/76). However, ISO has reported to the Task Force staff that the average award in the Final Closed Claim Survey will be \$47,900. In the preliminary survey, it was thought to be over \$100,000.

⁹⁵Id., Detailed Analysis, pp. 40-43. For a discussion of whether Worker Compensation should be the exclusive remedy for injured employees and of the proposals to modify the rules regarding contribution and indemnity, see p. VII-103 et. seq. and VII-89 et. seq., respectively.

⁹⁶See Volume II, Industry Study at D-17.

In California it has been estimated that only 28% of Worker Compensation claims involve industrial equipment. Only a percentage of these accidents would result in successful product liability claims.

⁹⁷See Transcripts, Advisory Committee on Product Liability, Second Meeting, pp. 39-43 (11/1/76); Third Meeting, pp. 31-33 (1/11/77).

⁹⁸See Insurance Study at 4-67; Volume III, Legal Study at 100-101; Transcript, Advisory Committee on Product Liability, Third Meeting, pp. 33, 35-36 (1/11/77).

⁹⁹See pp. VII-95 - 96.

99a To the extent insurance carriers write both product liability and Worker Compensation insurance, the effect of subrogation will be reduced.

100 See Industry Study at VI-11; A Survey of Workers Compensation Insurers: Preliminary Report, Teknekron, Inc., Berkeley, California (9/15/76).

101 See Industry Study, Volume II at D-17.

102 Industry Study at VI-10.

103 There is a good deal of speculation about the percentage of product liability claims that are instigated by the carriers themselves. See pp. VII-95 - 96. et. seq. ISO reported to the Task Force staff that it will reduce its estimate from 40% in the Preliminary Closed Claim Survey to 18% in the Final Closed Claim Survey.

104 Approximately 50 percent of the firms with less than \$2.5 million in sales indicated that "product design and engineering" were "not applicable" to product safety, compared to 12 percent of the larger firms surveyed. Nearly 41 percent of the small firms surveyed found that "product manufacturing and quality control" were "not applicable," while only 8.7 percent of the large firms agreed with that assessment. Industry Report at IV-58. As noted at p. VI-50, semantical difficulties may explain some of these differences.

104a See Industry Study, Table IV-32 at IV-61.

105 Id., Table IV-33 at IV-63.

106 Id., Table IV-32 at IV-61.

107 Id.

108 Id.

109 Id., Table IV-31 at IV-59. For a more complete discussion of the elements of product liability prevention programs, see Chapter IV of this report.

110 MAPI Survey at p. 12.

111 Id. at p. 13.

112 A recent study of business research and development investments prepared by the Battelle Memorial Institute indicated that the tort liability system has caused an increased investment in "applied research to prevent liability" from products. See Remarks of J. Sheehan, Legislative Director of the United

Steelworkers of America, Advisory Committee on Product Liability, Third Meeting, pp. 74-75 (1/11/77).

¹¹³Thus, in the Industry Study's telephone survey 37 percent of the respondent firms indicated that they had adopted a "special program directed at reducing product liability claims," while 60 percent stated that they had product safety programs dealing with "product manufacture and quality control." See Industry Study, Table IV-32 and IV-61; Chapter IV at IV-6. The difference may turn on the word "special" or other factors, but it is also possible that there is confusion regarding what product prevention techniques are.

¹¹⁴For a description of these services, see Chapter IV of this report at IV-5, IV-10 - 11; Industry Study at IV-12 - IV-14; Insurance Study at 1-42. See also Statement of John K. Dane, Vice President and General Counsel of Liberty Mutual Insurance Company, in Hearings on Product Liability Insurance Premium Increases Before the Subcommittee on Capital, Investment and Business Opportunities, House Committee on Small Business, 95th Cong., 1st Sess., pp. 1-14 (6/28/77).

^{116a}Id. at IV-25.

¹¹⁷The comparable percentages for large- and medium-sized firms were 74 percent and 72 percent, respectively. See Chapter IV at IV-5, IV-10; Industry Study at IV-13, IV-60.

¹¹⁸Insurance Study at 1-42.

¹¹⁹For a discussion of the disadvantages of small firms in coping with the product liability problem, see pp. VI-24 - 27.

¹²⁰See Industry Study at IV-102.

¹²¹Insurance Study at 1-38, 1-44; see Chapter VII at p. 143 for a more complete discussion of this issue.

Chapter VII
Remedial Approaches in the
Field of Product Liability

Part I
Introduction

CHAPTER VII--REMEDIAL APPROACHES IN THE FIELD OF PRODUCT LIABILITY

INTRODUCTION

THE SOURCE AND SCOPE OF REMEDY ANALYSIS

Many proposed modifications in the current system of product liability law (remedies) have been brought to the attention of the Federal Interagency Task Force on Product Liability. Some have been homespun attempts at "reform" that lack any in-depth development or analysis. These proposals were usually contained in letters from distressed manufacturers who simply wanted "quick relief" from the current product liability system. The authors of these letters feared that the continuation of the current system might cause them to go out of business.

The Task Force also received some more highly developed and specific remedial proposals. Suggestions of this type came in response to our notice in the Federal Register of our Scope of Research being conducted.¹ Other recommendations were brought to our attention by members of the Under Secretary of Commerce's Advisory Committee. Suggestions about remedies were also developed at a symposium held under Task Force auspices. The Task Force and its staff engaged in a process of continuing development, analysis, and review of remedial proposals throughout the course of the study. See Ch. I, pp. 7-18.

Our legal contractor reviewed legal literature, case law, and statutory models (when available) that related to all remedies considered in this chapter. Our industrial contractor gave special attention to remedies it believed had the potential for near-term alleviation of current manufacturer product liability problems. These include the use of Worker Compensation as an exclusive remedy for workplace accidents, the development of safety certification programs for industrial and unregulated consumer products, mandatory provision of product liability prevention programs by insurers and self-insurers, changes in federal accounting rules and standards for write-off of contingent liabilities. Our insurance contractor gave special attention to remedies that would affect a direct change in the

methods whereby product liability insurance was underwritten and regulated. It also evaluated most of the remedies considered herein and attempted to estimate their impact on reducing the cost of product liability insurance.

The reader should consult the Task Force legal, industrial, and insurance studies for a specialized treatment of remedial proposals. Those studies also contain citations and supporting data for some of the assertions made in this chapter.

This chapter will not attempt to discuss all remedial proposals concerning product liability. Rather it will select those which, on the basis of information brought to the attention of the Task Force, deserve full analysis and treatment. Moreover, the chapter will give more thorough treatment to remedial proposals that have not been considered in the past by other sources. Our goal was to provide an analysis of remedies that could be readily used by legislatures or others who are giving immediate consideration to product liability reform. It is our hope that our discussion of remedies will be useful to those sources and show most of the significant implications of the remedial proposals discussed herein.

Finally, it should be noted that our discussion of remedies in this chapter does not evaluate whether product liability insurers have engaged in unfair or unreasonable practices in pricing their products. In that connection there have been some suggestions by a variety of sources that neither the number nor severity of product liability claims justify current increases in product liability insurance rates. Our discussion of that problem and potential remedial action can be found in Chapter V of this report.

BASIC CONSIDERATIONS IN EVALUATING REMEDIES

In the course of our study, we have learned that many considerations must be taken into account in the process of evaluating potential modifications in product liability law. If one approaches evaluation of such modifications through a strict number of "criteria," the rigidity of that analysis is likely to lead to oversight or omissions of important matters. For that

reason, we have not limited ourselves to a specific number of remedy calipers.

Nevertheless, it did not seem appropriate to be totally freewheeling in our remedy evaluation. There were a number of important considerations that can be utilized in evaluating each of our remedies where--indeed--we have information that would render it possible to do so. As will be evident from the discussion in this section, these considerations, to some extent, "establish conflicting goals." This is because the product liability system is subject to the conflicting interests of injured parties, manufacturers, insurers, and others.

We have attempted to evaluate remedies in as objective a manner as possible while deriving some assistance toward that goal from the six considerations set forth below.

Consideration I

Ensure that a person injured by an unreasonably unsafe product receives reasonable compensation for his or her injury.

Neither this report nor others can detail the precise scope of the product liability problem. Nevertheless, from the perspective of some businesses it would appear to be a "crisis." In an atmosphere of crisis, resort is sometimes made to harsh measures that thwart the rights of ordinary individuals. We deem it inadvisable to rush toward such remedial approaches. We note that many thoughtful persons have acclaimed the development of the current product liability system and its attempt to provide compensation for persons injured by products. See, e.g., DOC Transcript, The Product Liability Advisory Committee to the Under Secretary of Commerce (4th meeting, June 27, 1977), remarks by Ms. Anita Johnson of Public Citizen's Health Research Group, pp. 76-83 [hereinafter cited as Advisory Committee].

Over 30 years ago, Mr. Justice Traynor stated one of the basic reasons for placing the cost of injuries caused by unsafe products on the manufacturer. He said:

The cost of an injury and the (subsequent) loss of time or health may be an overwhelming misfortune to the person

injured, and a needless one, for the risk of injury can be insured by the manufacturer and distributed among the public as a cost of doing business.²

As the current insurance situation in regard to product liability suggests, Justice Traynor's thesis may have its limitations: at some point some manufacturers, retailers or distributors of products may not be able to bear the full common law cost of injuries. Nevertheless, in evaluating each of the proposed remedies, one must not overlook the practical core of Justice Traynor's thesis: a person who is injured by an unreasonably unsafe product should receive reasonable compensation for his injuries from the manufacturer of that product.

Obviously, this proposition has within it at least two key questions. First, what is "reasonable" compensation? In our consideration of proposed remedies, we will address ourselves to this topic. Second, what is an "unreasonably unsafe" product? Obviously few, if any, courts would impose liability on a manufacturer of knives when a person cuts himself in the course of using that product. On the other hand, most courts agree that a manufacturer should be responsible for a foreseeable injury caused by an unsafe condition in the construction of a product. In our discussion of remedies, we will attempt to provide useful insight into what should be deemed an "unreasonably unsafe" product for the purposes of product liability.

In sum, the basic thrust of this consideration is to look with a critical eye on remedies that can only be justified by the fact that they contain "cost saving devices" for product liability insurers or their insureds.

As our discussion will show, this consideration is not only relevant in evaluating remedies that are directed at reducing the cost of product liability insurance, but it is also of assistance in and, in fact, sponsors remedies that are specifically aimed at ensuring that victims of unsafe products are compensated. These remedies, (e.g., mandatory product liability insurance, unsatisfied judgment funds), address themselves to a potential problem that may arise from the product liability problem: some manufacturers of unsafe products may be unable to respond in

damages when sued by persons injured by those products. While our data with respect to this consequence are not strong enough to suggest immediate legislative action, it does indicate that the problem may arise in the not too distant future.

Consideration II

Ensure the availability of "affordable" product liability insurance with adequate coverage to manufacturers that engage in reasonably safe design and quality control practices.

As the data collected by the Task Force show, a limited number of manufacturers have been unable to obtain product liability insurance. Many others have asserted that they can no longer afford such insurance. In our consideration of remedial approaches, we will make an attempt to provide suggestions that might alleviate those problems. We do not believe that one should create a situation in which "affordable" product liability insurance is available to all manufacturers. More specifically, the law should not be modified in order to provide such insurance to manufacturers who are both unwilling and unable to follow reasonably safe manufacturing standards. Nevertheless, anecdotal data indicate that some manufacturers who apparently follow those standards may be unable to obtain product liability insurance at an affordable rate. These are manufacturers who have never been subject to product liability suits. Often, these manufacturers produce durable goods which stay in the marketplace many years, creating a "long-term" threat of product liability actions, or they may be manufacturers of consumer products such as sporting goods, which by their intrinsic nature are likely to be part of a pattern of accidents and injuries.

While the overwhelming majority of manufacturers who follow safe production practices are able to obtain product liability insurance, the rates for some appear to have risen so high as to make the cost of such insurance prohibitive: the cost is beyond what would be deemed a reasonable cost of business.

While this fact dictates that we should look with favor upon remedies that will help provide insurance at "affordable" rates, it does not define affordability. The definition of that term is one that must be considered. According to our Insurance Study,

"the best way of gauging affordability is to determine the increase in premium and then calculate the percentage of sales it represents. If this increase is significant as a percentage of sales, there could well be a serious affordability problem, depending on the size, financial strength, profitability, and competitive position of the firm." DOC, Interagency Task Force on Product Liability: Final Report of the Insurance Study at 3-4 to 3-5 (1977) [hereinafter cited as Insurance Study]. Chapter VI of this report discusses the insurance affordability problem in detail. See Ch. VI PP. 11-27. We also discuss the topic in this chapter in connection with analysis of when, if ever, residual insurance market mechanisms should be subsidized.

Finally, it should be noted that this consideration also includes the word "coverage." Product liability insurance may be available at "affordable" rates, but if coverage restrictions are severe, its protection may be meaningless. Again, our data suggest that some companies may have been required to absorb deductibles that would appear to be too high in light of the assets and size of those businesses. See DOC, Interagency Task Force on Product Liability: Final Report of the Industry Study Vol. 1, at IV-9 to IV-10 [hereinafter cited as Industry Study].

Consideration III

Place the incentive for risk prevention on the party or parties who are best able to accomplish that goal.

Obviously, it is in the interest of all groups adversely affected by product liability problems to reduce the number of accidents caused by products. It has been said that tort law can help bring about this goal: the threat of large product liability judgments has prompted manufacturers to seek ways to produce safer products. See Industry Study at I-9 and I-10. Nevertheless, as our discussion of remedies will show, current product liability law does not always place the incentive for risk prevention on the party or parties who are best able to implement that goal.

At least two factors may help determine who is "best able" to minimize product risks. One is pure economics: who can do it most cheaply. See the discussion of this matter in connection

with consideration V. Pure economic analysis may lead to the conclusion that an individual user or consumer of a product is best able to prevent a risk. A second factor focuses on who is in the best practical position to prevent product-related injuries. This factor may point to another party. In that connection, a manufacturer, insurer, or even the government may be in a better position to implement risk prevention techniques than an individual user or consumer of the product.

Consideration IV

Expedite the reparations process from the time of injury to the time the claim is paid.

Delays in the reparation process do not appear to serve any social interest. A seriously injured plaintiff can ill afford to endure long delays between the time of his injury and the time he is paid. Furthermore, where insurers have to place large amounts of money in reserve accounts "pending" the outcome of potential or actual litigation, this adds a potentially irrational element in the setting of product liability premium insurance rates. Therefore, we deem it a favorable consideration when a remedy will expedite the reparation process.

Consideration V

Minimize the sum of accident costs, prevention costs, and transaction costs.

In connection with the Interagency Task Force's Legal Study, it was observed that from a resource allocative point of view, liability assignment rules which impose the economic costs of product-related accidents on the most efficient accident-avoider are the most appropriate standards. DOC, Interagency Task Force on Product Liability: Final Report of the Legal Study Vol. IV, at 36 (1977) [hereinafter cited as Legal Study]. DOC Transcript, The Symposium of the Interagency Working Task Force on Product Liability, July 21, 1976, remarks by Professor Walter Oi [hereinafter cited as Working Task Force Symposium]. As will be seen in the economic analysis of remedies that appears in our Legal Study (and the brief recapitulation of such perspectives set forth herein), this goal, while worthwhile, is not easy to

fulfill. Further data collection and analysis may be necessary to fully implement it.

It should be noted that even if one can determine how the sum of accident costs and accident prevention costs can be minimized, other factors may be more important than economic efficiency. For example, one may wish to forego minimization of "transaction costs" (e.g., abolish all jury trials) when that occurs at the expense of other values which society deems more important. Nevertheless, this consideration seemed significant enough to identify specifically.

Consideration VI

The remedy is comparatively specific and concrete in nature and format.

Many remedial approaches that appear quite favorable when stated in a broad and general manner break down when one focuses on the practicality of their implementation. The Task Force study has kept this factor in mind as it analyzed remedies. Closely related to this consideration is whether the remedy could be implemented within a relatively short period of time. In that connection, where the data from this or other studies suggest that certain aspects of product liability law have caused immediate and serious problems, it is important to discern how quickly a particular remedy can be implemented. Our discussion of remedies will encompass the ways and means whereby remedies can be implemented. This discussion is expanded and developed in our Legal, Insurance and Industry Studies.

CONCLUSION

Many other considerations will enter into our discussion of remedies. Permeating our discussion of all the remedies will be our concern as to whether it is basically fair to all of the groups who have an interest in the product liability problem. Nevertheless, these six factors appeared important enough to merit specific reference.

ORGANIZATION OF THE DISCUSSION OF REMEDIES

The purpose of this section is to assist the reader in assimilating the material contained in the analysis of proposed product liability remedies. It should be noted that the remedies are not distinct and isolated proposals: they form a complex network of interrelated measures. Some of these interrelationships will be discussed in connection with each remedy.

The organization utilized in this chapter is based on the practical needs of persons who are likely to consider this study. The main section headings are set forth below:

- I. Introduction
- II. Proposed Modifications of Some Basic Product Liability Rules
- III. Proposed Modifications of Some Basic Product Liability Law Rules that Relate to Damages
- IV. Proposed Modifications of Product Liability Law Rules Relating to a Defendant's Right Against Third Parties--The Problem of the Workplace Injury
- V. Proposed Modifications of Product Liability Insurance Mechanisms
- VI. Alternative Methods for Compensating Consumer Product Injuries: Herein No-Fault Compensation Systems and Arbitration
- VII. Summary and Conclusions

Section I, as indicated thus far, provides an overall framework for the consideration of product liability remedies.

Section II, entitled "Proposed Modifications of Some Basic Product Liability Law Rules," focuses on five potential problem areas in current product liability law that might be modified with the net result of improving the tort-litigation system.

First, there is a discussion of the basic standard of responsibility in product liability cases. This rule (or network of rules) goes to the heart of whether the manufacturer should be deemed liable for injuries caused by his product.

Second, there is a discussion of modifications of rules relating to the age of products. Perhaps no other area of product liability law has caused as much concern for manufacturers of industrial products and their insurers. Nevertheless, when interests of all groups are considered, the topic area does not lend itself to easy solutions.

Third, there is a discussion of the duty limitation for unavoidably unsafe products. This is an area that has been of particular concern to manufacturers of pharmaceuticals.

Fourth, there is an analysis of whether predictable standards can be developed for product liability cases. It should be recalled that it is the uncertainty in product liability law that the Task Force has identified as one of the basic causes of the product liability problem. See Chapter I at p. I-21.

Fifth, there is a discussion about modifications of rules relating to the conduct of product users. When should an injured person's product liability claim be barred or modified because he or a person other than the manufacturer misused the product?

Section III deals with proposed modifications of some basic product liability law rules that relate to damages. These rules are perhaps of greater practical importance than the ones set forth in the second section. In this section we discuss five basic areas.

First, attorneys' fees: it has been suggested that the cost of both plaintiffs' and defendants' attorneys' fees may aggravate the product liability problem. Second, there is a discussion of damage awards for pain and suffering. Third, there is an analysis of proposed modifications of the collateral source rule. A fourth section deals with proposed alterations of rules relating to the awarding of punitive damages. Finally, there is an analysis of proposals that would replace lump sum damages with a periodic payment system. While proposed reforms in each of these areas can apply throughout the law of torts, we have attempted to show the impact of those proposals on the field of product liability.

Section IV deals with proposed modifications of product liability law that relate to a defendant's right against third parties. These rules have particular importance in regard to the product liability problem because they focus on allocation of costs of the workplace injury. There are four main topic areas that are the focus of the section: first, modification of contribution and indemnity rules that would allow manufacturers to shift a portion of product liability onto negligent employers; second, proposals that would prohibit or modify subrogation rights presently exercised by Worker Compensation carriers; third, rules that would validate "hold harmless" agreements--these agreements apply not only to transactions between manufacturers and employers but any parties that might be in the distribution of products. Finally, there is a discussion of Worker Compensation as a sole source remedy. Of all the remedies put forth for resolving product liability problems in the workplace, this one has been given the greatest amount of attention.

Section V deals with a multiplicity of rules that would modify product liability insurance mechanisms. These proposals attempt to resolve the product liability problem without affecting current tort law rules. Among the mechanisms discussed are assigned risk plans, pooling mechanisms (both voluntary and mandatory), and reinsurance programs. A separate section discusses under the circumstances in which these mechanisms should be subsidized and whether the proposals would work best at the federal or the state level. The section also discusses proposed modifications in law that would facilitate the process by which manufacturers could insure themselves. These mechanisms include captive insurance companies and structured self-insurance programs.

The section also considers mandatory product liability prevention programs. This is a topic that might be placed in other portions of the report, but because of the close interrelationship between product liability prevention programs and insurance mechanisms, it has been set forth in Section V. Finally, the chapter focuses on remedies designed to eliminate unsatisfied judgments. These would include both mandatory product liability insurance laws and unsatisfied judgment funds.

Section VI focuses on major alternative methods for compensating consumer product injuries. It includes a discussion of both pure and modified no-fault compensation systems. The analysis stresses problems that arise when no-fault concepts are applied in the area of product liability. It also sets forth potential solutions to some of those problems.

Also, the topic of arbitration is analyzed. While the use of arbitration is not as major a modification of the law as a no-fault compensation system, it does, at least in part, remove a fundamental element from common law--the jury. Also, arbitration has the potential of achieving some of the benefits of no-fault compensation systems and is deserving of being contrasted with it.

Section VII summarizes and synthesizes the conclusions of the chapter. Here some of the major themes that permeate the remedies are discussed. Also, the section synthesizes and shows relationships between the first six sections of the chapter.

Obviously, there are many other ways to organize a discussion of product liability remedies. For example, most legal purists would group Worker Compensation and consumer no-fault systems under a general "no-fault" heading. We have tried to be somewhat more functional in our approach: we have learned that the problem of the workplace product injury is arguably separable from that of the consumer product injury and for that reason have treated modifications in the Worker Compensation system in a section separate from our consideration of consumer no-fault.

Because of our sensitivity to the fact that the topic of product liability remedies may be organized in a multiplicity of ways, we have set forth a detailed table of contents for this chapter. We advert the reader to that table in order to assist him in finding specific topic areas.

NOTES TO REMEDIAL APPROACHES
IN THE FIELD OF PRODUCT LIABILITY

¹See 41 Fed. Reg. 40529 (9/20/76).

²See Escola v. Coca Cola Bottling Co., 24 Cal.2d 453, 462,
150 P.2d 436, 441 (1944) (concurring opinion).

Part II

Proposed Modifications of Some Basic Product Liability Law Rules

PROPOSED MODIFICATIONS OF SOME BASIC PRODUCT LIABILITY LAW RULES

Introduction

Most of the remedial approaches that were brought to the attention of the Interagency Task Force on Product Liability assumed the retention of the basic tort-litigation system of apportioning the cost of accidents caused by products. The proponents of these measures evidently believe that the product liability problem can be abated without major restructuring of the law. In essence, under the tort-litigation system:

- The existence and the extent of liability are determined on a case by case basis.
- A jury determines the relative rights of the plaintiff and the defendant under a given set of standards supplied by a court.
- The defendant or potential classes of defendants attempt to protect themselves against potential judgments through the medium of liability insurance.

See also Calabresi, "Does The Fault System Optimally Control Primary Accident Costs," 33 Law and Contemporary Problems 428, 429 (1968).

While a general assessment of the utility of this system is beyond the scope of our inquiry and is fraught with emotional as well as logical arguments, we would note that some of the principal reasons for its retention include:

- That the system has been an essential part of American jurisprudence for many years and is in accord with legal and moral traditions of this country. Before it is abandoned, a substantial showing should be made that it does not work at present, and that it cannot be salvaged.

- That the system can have particular utility in the field of product liability because of the special need for individual treatment of specific cases. This matter is amplified in our discussion of no-fault insurance at p. 220.
- That alternative approaches often provide only general outlines for their implementation and may be fraught with unknown problems. This consequence may also apply to specific proposals that operate well in other countries. In that connection, it is argued that such proposals--even when successful in their country of origin--would not necessarily be effective if they were applied in the United States.

The principal arguments against the tort-litigation system also have a good deal of strength; they are set forth in connection with our discussion of no-fault insurance at p. 289.

THE BASIC STANDARD OF RESPONSIBILITY IN PRODUCT LIABILITY CASES

Introduction to the Problem

There seems little doubt that the current product liability problem was caused in part by the tremendous uncertainty on the part of insurers about the nature of the basic standards of responsibility in product liability cases. In that regard, conflicting interpretations of the American Law Institute's Section 402 A of the Second Restatement of Torts have unwittingly undermined a fundamental purpose of "Restatements" of Law: they are intended to promote uniformity in the common law system.

This lack of predictability in basic product liability rules has not only occurred in different jurisdictions, but also in the same jurisdiction. Our Legal Study reflects that this is especially true in states that have developed the "lead cases" in product liability law--California and New Jersey are examples. See Volume III, Legal Study at 118-119. Ch. II p.6-12.

What has caused this uncertainty? In part, it springs from the nature of the common law itself which is formulated on a

case-by-case basis without necessarily pausing for an overview of the entire field, but there are more specific reasons.

First, when Section 402 A of the Restatement of Torts was first published in 1965, its authors did not have a resource of many decided cases that had applied strict liability under a clearly articulated tort theory in all product lines. In point of fact, there was only one leading case that followed such a rationale. See Greenman v. Yuba Power Products, Inc., 59 Cal. 2d 29, 377 P.2d 897, 27 Cal. Rptr. 697 (1963). See also Prosser, "The Fall of the Citadel (Strict Liability to the Consumer)," 50 Minn. L. Rev. 791 (1966).

Second, while Section 402 A has gained remarkable popularity among the states, not all states rely on it exclusively. Some jurisdictions utilize at least three theoretically different theories of recovery in product liability cases: breach of warranty, negligence, and strict liability. (See Ch. II-3 - 6.)

Third, Section 402 A and similar state theories of "strict product liability" potentially have inherently conflicting values. On one hand, they may impose liability even though "the seller has exercised all possible care in the preparation and sale of his product." See Restatement (Second) of Torts Sec. 402 A(2) (a) (1965). On the other hand, all jurisdictions, at least in some contexts, stop short of imposing absolute liability on a seller for product-related injuries. The Restatement requires the plaintiff to show that the product was in "a defective condition unreasonably dangerous to the user or consumer...." Some states, for example California, have dropped the term "unreasonably dangerous", but still require the plaintiff to show that the product was "defective." No state has yet imposed liability on the manufacturer of a product where a plaintiff complained of the very quality that rendered the product useful--the classic case of an allegation that a manufacturer of a knife should be responsible for the fact that it cut a person who was using it. See CH II. p. 5-8.

In sum, this tension has arisen because Restatement of Torts Section 402 A and other strict liability theories suggest that somehow they are to place more responsibility on a manufacturer than ordinary negligence principles. Nevertheless, for reasons

of policy, they wish to stop short of absolute liability: the tort-litigation system is not to be converted into a pure state accident insurance system. The manufacturer is to be responsible for reasons that go beyond the fact that "he is better able to pay."

Proposed Solutions to the Problem

It has been strongly argued to the Task Force that in the context of the tort-litigation system, it is rational to require that a plaintiff prove that the product that injured him was unreasonably unsafe. This requirement would not appear to violate any of the considerations outlined on p. 2. In order to understand the implications of this requirement, it is important to differentiate or identify the aspects of the manufacturing process where excessive dangers are likely to arise. The principal ways in which unreasonably unsafe conditions can arise are as follows:

Unsafe Manufacture or Construction

A product may be unreasonably unsafe because it contains a physical flaw occasioned by a failure in construction that was not screened out by the quality control process. Our studies suggest that manufacturers and insurers could withstand the imposition of liability in this context, assuming due consideration was given to the age of the product and that the rules relating to damages were balanced and rational.

Unsafe Design

Here it is alleged that the entire product line is unsafe, and the plaintiff must show that the defendant could have designed its product in such a way that it could accomplish its intended purpose without causing him injury.

As chapter II reflects, this area has caused courts extreme difficulty in formulating standards. See Ch. II-6 - 12. They have, in most instances, reached results that would not be any different than under a negligence theory. Nevertheless, there is language in a number of cases and some actual results that go beyond a negligence standard. It is in this area that

more certainty is needed. Moreover, it would seem likely that the availability of "affordable" product liability insurance would be promoted if the manufacturers' duty with respect to design of a product was spelled out in understandable and clear rules that "contemplated a balancing of the cost and benefits of marketing the product with and without the offending condition." See Montgomery and Owen, "Reflections on the Theory and Administration of Strict Tort Liability for Defective Products," 27 S.C.L. Rev. 803 (1976) (collecting a wide variety of theories regarding liability for defective design).

Inadequate Warning or Instructions About an Unsafe Aspect of the Product

Here the product is regarded as unsafe because the manufacturer failed to warn about a particular product hazard. This potentially could include a hazard that was unavoidable in light of the state-of-the-art at the time of manufacture.

Again, as Chapter II reflects, this is an area where tremendous uncertainty has arisen. See p. Ch II-12 - 18. Our legal contractor discovered language in a number of decisions that would impose liability for a failure to warn where it was impossible for a reasonable manufacturer to execute that obligation. Again, the actual holdings of the cases suggest that most decisions are doing little more than imposing basic negligence standards. It is excessive language in some decisions and occasional imposition of liability in some cases that may have triggered extreme caution on the part of a number of product liability insurers in setting their premium rates.

Summary and Conclusions

Where the courts themselves are uncertain in articulating the basic standards of responsibility in product liability cases, the problems created by this uncertainty are increased when trial judges attempt to articulate these standards for the benefit of a jury of laymen. See Green, "Strict Liability Under Section 402 A and 402 B: "A Decade of Litigation," 54 Tex. L. Rev. 1185 (1976); Keeton, "Products Liability and the Automobile," 9 The Forum 1 (1973). On page 1206 of his article, Dean Leon Green (who has been a student of tort law for over six decades) sets

forth a relatively simple instruction that could significantly reduce confusion on the part of the jury in the product liability cases.

While this report will not present a model statute dealing with a manufacturer's duty to design his product or his duty to warn about product hazards, our supporting contractor studies are a helpful resource for a legislature engaged in that enterprise. Also, the next four subsections of this chapter set forth some of the major issues that can be resolved in legislation and by that process alleviate the uncertainty in product liability law that has helped cause the product liability problem. These issues include matters relating to the age of products, a duty limitation for unavoidably unsafe products, the utilization of the state of the art and compliance with legislative or administrative standards defense, the regulation of expert testimony and rules relating to conduct on the part of product users.

There has been over 10 years of intense litigation in the area of product liability, since the publication of Restatement of Torts Section 402A. There are sufficient resources to allow a legislature to make a rational decision in regard to those issues. It would seem that the product liability insurance problem might be on its way toward resolution if legislatures, in the immediate future, took action on these matters.

Our legal contractor undertook one of the most extensive analyses of case law that has been conducted in this area. It suggested that one cause of action or claim be identified for product liability cases. See Volume IV, Legal Study at 93. Based on the contractor's analysis and other materials that have come to the attention of the Task Force, we suggest that this cause of action separately identify defects in construction from defects in design and defects based on a failure to warn.

When the product is not made in accord with the manufacturer's own specifications (a defect in construction) and this causes an injury, manufacturers should be strictly liable. On the other hand, when the defect is one of design or failure to warn, it may not be sound to subject a manufacturer to liability unless considerations such as the foreseeability of harm and the

seriousness of harm are balanced against the utility of the product and the burden on the manufacturers to avoid the risk. In sum, open-ended "strict liability" under the tort system in these areas does not appear to be sound long-range policy.

MODIFICATION OF RULES RELATING TO THE AGE OF PRODUCTS

Introduction to the Problem

Perhaps more than any other single factor alleged to be "the cause" of the insurance problem for manufacturers of products used in the workplace is the uncertainty about rules leading to their responsibility for older products. In that connection, coverage provisions in most product liability policies not only include claims based on products manufactured during the given year, but also products manufactured by the insured in the past. In the case of manufacturers of durable goods, this creates an "open-ended" liability situation that is apparently a cause of product liability unavailability situations and large premium increase situations in regard to those manufacturers.

In many states, the duty of a manufacturer with respect to older products is less than clear. In that regard, the Supreme Court of Oregon has observed that "prolonged use of a manufactured article is but one factor, albeit an important one, in the determination of whether a defect in the product made it unsafe . . ." Tucker v. Unit Crane & Shovel Corp., 256 Or. 318, 320, 473 P.2d 862 (1970) (Boom Crane manufactured in 1956 collapsed in 1965).

In our legal's contractor study of 655 appellate cases, the date of manufacture could be determined in 198 situations. While the sampling was a rough one at best, the contractor found that product liability litigation relating to significantly aged equipment occurs, but not often. Thirteen percent of the cases in which the date of manufacture was known involved equipment over 20 years old. Only 4 percent of the date of manufacture sample involved equipment over 25 years old. See pp II-46 & 47. Preliminary data from the ISO Closed Claim Survey show that 97.1 percent of bodily injuries caused by products had occurred as of 60 months after purchase. On the other hand, the same data source indicates that 12 percent of such incidents had not

occurred until 12 years after the time of manufacture. See Insurance Services Office, Detailed Preliminary Analysis of Survey Results (December 1976) pp. 52-55 [hereinafter cited as ISO Survey, Detailed Analysis].

Regardless of what the data show, our insurance study suggests it is the underwriter's concern about the potential loss regarding older products that may be an important factor of the increase in liability premiums for manufacturers of durable goods. See Insurance Study at 4-92.

With respect to the enactment of any "reform" in regard to manufacturers' duty for old products, one should note the observation of at least one underwriter interviewed by our insurance contractor. He indicated that reform that would reduce liability exposure from old products would simply alleviate one problem confronting the property casualty insurance industry and would not be sufficient justification for changing his company's underwriting posture. See Insurance Study at 4-94. While this comment would apply to most of the proposed tort reforms, it is appropriate to note because problems of "the older product" have been identified by a great number of interested parties as very serious. The main approaches to this problem within the context of the tort-litigation system are statutes of limitations or repose and a useful life duty limitation. Both are discussed below.

Proposed Solutions to the Problem

Statutes of Limitations or Repose

The traditional tort law statute of limitations begins to run at the time when an individual is injured. The theoretical basis for this approach is that there can be no "tort" until there has been an actual injury or damage.

In the field of product liability, traditional tort law statutes of limitations are relied on in any actions based on negligence. These statutes begin to run at the time a person is injured. In early strict liability cases that were based on "breach of warranty," a number of courts used the statute of limitations normally utilized in actions based on breach of

contract. This begins to run at the time a product is sold, not when it causes an injury. In the past 10 years, however, a growing number of courts have recognized that although strict liability actions often used the word "warranty", they were in essence tort and not contract actions. The courts therefore concluded that the appropriate statute of limitations should be tort law: it should begin to run at the time of actual injury or damage. For a recent example see Victorson v. Boch Laundry Machine Co., 37 N.Y.2d 395, 373 N.Y.S. 2d 39, 335 N.E.2d 275 (1975).

As has been indicated, it has been strenuously argued to the Task Force that a statute of limitation based on the time of injury may be unfair in product liability cases. The argument is most appealing when it focuses on old capital equipment. The machinery in question may be more than 10, 20, or even 30 years old. The manufacturers of that equipment may be unable to locate the goods at the present time. A basic predicate for strict liability--the ability of a manufacturer to distribute the cost of injuries in the price of his product--may not apply in cases of this kind. When the machine was sold, the manufacturer could not "cost in" tort liability on the basis of a standard that would evolve 20 years in the future. Further, in light of the fact that capital goods manufacturers sell relatively few products (as compared with sellers of consumer goods), they may be less able to "pass through" product liability costs in the price of their new machines. Finally, if manufacturers tried to do this, newer manufacturers could substantially undercut older competitors.

It has been argued to the Task Force that statutes of limitations in product liability cases should begin to run at the time of initial "sale" or "manufacture" or "the time the product entered the stream of commerce." Examples of statutes from Oregon, Connecticut, and proposed bills from Massachusetts, Michigan, and Kansas appear in our Legal Study. A statute of this type was enacted in Utah in April, 1977. See Utah Code Ann. 78-15-13 (as amended, 1977). A Draft Treaty on product liability proposed by a committee of the European Common Market would terminate a manufacturer's liability 10 years after the end of the calendar year in which the product was "put in circulation by the producer." The producer could have the benefit of that

statute if his product had not caused an injury during the ten-year period.

The main considerations favoring these proposals are that they would help ensure the availability of "affordable" product liability insurance and also that they are comparatively specific and concrete in nature and format.

With respect to the first consideration, some underwriters have said that even if old products represent a relative "handful of losses," they have had an impact on underwriting judgments far out of proportion to their statistical significance. See Insurance Study at 4-92. Given the highly subjective nature of product liability insurance underwriting, it is argued that removing the specter of claims based on old products would cause underwriters to view the manufacturers of durable products more favorably. Other underwriters are less sanguine as to whether modifications in statutes of limitations would lead to a reduction of rates. They would want to have more information than they do now about the statistical significance of claims based on old products. See Insurance Study at 4-94.

In that connection, the Federal Insurance Administration representative to the Working Task Force reported that the introduction of a shortened statute of limitations for medical malpractice in the State of Indiana did not curtail the rise in medical malpractice premiums in that state. While there were many anecdotes about old or "stale" medical malpractice claims, they were not an actual cause of the rise in medical malpractice premiums in that state. The final results of the Insurance Services Office's Closed Claim Survey, discussed in Chapter V, p. 24, above, should provide more specific information on this issue in regard to product liability.

With respect to the second consideration, it would appear that the remedy is specific and concrete in nature and format. Nevertheless, it may not be once the details are worked out.

First, consumer representatives to the Under Secretary of Commerce's Product Liability Advisory Committee have argued that an across-the-board statute of limitations for a specific period of years based on the time of sale or manufacture would not be

equitable because of the wide variation in products' lives. If this factor were accounted for, those drafting the statute would have to make extremely difficult judgments about the reasonable durability of products to which the law was to be applied.

Second, consumer interests also suggest that such a statute must not apply to products that have a defect which was clearly in existence at the time of manufacture. This could include an automobile that was manufactured with a defective brake. It also could include a pharmaceutical that had a long-range adverse effect on the user or consumer. Since the statute would have to take account of such products, this compromises the apparent concreteness of the format of this remedy

Third, the legislatures must be specific that the statute of limitation (here better entitled statute of repose) is part of the substantive law of torts. In that regard, in many states, statutes of limitations (at least for choice of law purposes) are regarded as procedural. Their purpose is simply to exclude stale claims from state trial court forums. If the statute of limitations was only "procedural," an injured person might bring a good claim in another jurisdiction where the statute of limitation had not yet run (assuming that a person could obtain jurisdiction over the defendant). In sum, the enacting state would have to make clear that the new statute of limitations was part of the substantive law of torts and was to be given full faith and credit for choice of law purposes, if a claim was made in another jurisdiction where the "forum" was still open. If the forum state had a substantial connection with the product injury incident, it still would be free to apply its own statute of limitations. This matter was not explored by our legal contractor, but is worthy of consideration by state legislators who are considering this remedy.

Finally, the statute of limitations would have to deal with the problems raised by potential indemnity claims, when there have been multiple sales of product. See Volume V, Legal Study at 13; Siegle, "Procedure Catches Up and Makes Trouble," 45 St. Johns L. Rev. 62 (1970).

The main argument against the statute of limitations based on the time of manufacture or sale (especially a simple across-the-

board rule) is not based on technical complications that might arise from its enactment. Rather, it focuses on the merits of the remedy itself. It is argued that this remedy will compromise the Task Force's goal that persons injured by unsafe products receive reasonable compensation for their injuries. In that connection, a member of the Under Secretary's Advisory Committee on Product Liability, who favors the remedy, has observed that

"there is no question that such a law will prevent someone who is injured on an old product where fault really lies with the product, from suing to collect damages. This is abhorrent, but it is even more abhorrent to have large number of cases filed and processed against manufacturers who cannot protect themselves against careless users and owners. It is a matter of relative importance. . . ." (Statement of Dr. Ralph B. Baldwin, to the Under Secretary of Commerce's Advisory Committee on Product Liability, 2nd meeting, November 1, 1976).

The speaker summed up the tension between a manufacturer's need to cut off stale claims and an individual's right to receive compensation when he is injured by unreasonably unsafe products.

Because of this tension, constitutional challenges to product liability statutes of limitations based on the time of sale or manufacture are likely to arise. These challenges may be predicated under both state and federal constitutional provisions. Our Legal Study discusses the issues in these cases and provides citations to decisions regarding statutes of limitations in the product liability and related fields. See Volume V, Legal Study at 10-13.

Finally, it has been argued that there is no real need for this remedy in light of current product liability rules relating to burdens of proof. Plaintiff still must prove that it was more probable than not that the product that injured him was defective at the time of manufacture.

Our Legal Study concluded that consideration should be given to allow a ten-year statute of limitations based on time of sale with regard to durable industrial goods, or to the assignment of statutes of different lengths of time to different categories of products. The problems connected with that approach have been

suggested herein. See Volume V, Legal Study at 14. The Legal Study notes that the proposal could give more accord to plaintiffs' rights if it required (as in the case of the European Common Market Proposal), that the product had been used without problems for the intervening period.

A Useful Life Duty Limitation

In an attempt to balance the rights of persons injured by products against the argument that manufacturers should not be liable "for eternity" with respect to products they have manufactured, it has been argued that a more balanced solution would be to limit manufacturers' duty with respect to products to the "ordinary useful life of that product."

This general approach was also suggested at the Working Task Force's Symposium. See Working Task Force Symposium, remarks by Professor Alvin S. Weinstein, at 163.

In its research effort, our Legal Study discerned that a number of courts at least state that they are applying a useful life duty limitation at the present time. See Volume V, Legal Study at 21. Thus, the Supreme Court of Pennsylvania recently declared:

The age of an allegedly defective product must be considered in light of expected useful life and the stress to which it has been subjected. In most cases, the weighing of these factors should be left to the finder of fact. But in certain situations the prolonged use factor may loom so large as to obscure all others in the case. See Kuisis v. Baldwin-Lima-Hamilton Corp., 457 Pa. 321, 319 A.2d. 914, 923 (1974). (There, a brake-locking mechanism on a crane fell after it had been in use for more than 20 years).

Nevertheless, our Legal Study found a number of cases in which liability had been imposed on manufacturers after the product had been in the stream of commerce for more than a decade. The 1976 National Association of Machine Tool Builder's Survey, discussed in Chapter III, pp. 19-20, was the only trade association survey we received that had data of this type. The ISO Preliminary Closed Claim Survey also indicates that such

claims exist. See ISO Survey, Detailed Analysis at 52. This suggests that current, very general useful life limitations may not always be carefully applied by triers of fact.

If a useful life limitation were identified in statutory form, it might be expected that it would be given more serious attention by both judge and jury. Nevertheless, the concept would still lack specificity. This specificity might be provided if the "useful life" were specifically determined at the time of manufacture. Our Legal Study, following a suggestion made in dictum by the New York Court of Appeals, indicated that the manufacturer might show the date of manufacture on its product and also indicate its "useful life." See Velez v. Craine & Clark Lumber Corp., 33 N.Y.2d 117, 350 N.Y.S.2d. 617, 305 N.E.2d 750 (1973). Volume V, Legal Study at 28. Of course, total control on this issue could not be given to the manufacturer and a court, in each case, might have to make a ruling of law as to whether the manufacturer's limitation was a reasonable one. Cf. Henningsen v. Bloomfield Motors, Inc., 32 N.J. 358, 161 A.2d 69 (1960). Moreover, the suggestion in the Velez case presumes that this "warning" would come to the attention of the user. This might still leave bystanders (who presumably did not see the warning clause) with a potential cause of action against the manufacturer.

Another approach is to have standards for "useful life" formulated by a neutral source. The Task Force has received literature about this possibility from the American National Standards Institute and others. Suggestions have also been made that government agencies, such as the Internal Revenue Service, which have regulatory requirements governing rules of depreciation for allocating the cost of products over their useful lives might be a resource in this regard. Here one encounters a problem characterization: since the IRS is not forming its regulations with product liability in mind, it might not be an appropriate resource to formulate a useful life standard for product liability cases. Some regulatory bodies, such as the Consumer Product Safety Commission, the Federal Aviation Administration, and the Department of Transportation might be able to provide information which would allow the formulation of "useful life" rules for some products. This topic is further developed in our Industry Study, pt. VII, pp. 11-13.

From the evidence that has been brought to the attention of the Task Force, however, it would seem that the creation of a "useful life duty limitation" covering all or most products would be an almost impossible undertaking. Probably little more can be done than provide that a judge be required to instruct a jury and that a manufacturer shall not be subject to liability for injuries that occur beyond the ordinary useful life of his product. See Industry Study VII-13. According to our Insurance Study, while a "useful life" rule is more flexible and also more equitable than a flat statute of limitations, the uncertainty associated with any administrative or judicial procedure for establishing useful life might well reduce, and delay, any impact the reform might have on lowering the rates for product liability insurance as compared with the statute of limitations modifications. Insurance Study at 4-91.

It should be noted that a statutory "useful life" reform should indicate whether a person who knowingly uses a product beyond its designated useful life should be subject to liability tort when that product injures a third party. This determination, if made affirmatively, could result in a partial removal of an employer's immunity in tort under Worker Compensation systems.

Summary and Conclusions

In conclusion, we find some merit in the suggestion that a statute should set forth a period of time where a manufacturer's duty under tort law would terminate. We have shown that a useful life duty limitation, while helpful in some respects, is unlikely to achieve that goal.

Nevertheless, fixed statutes of repose can work an unfair hardship on injured parties. In an attempt to balance the interests of all concerned, we make the following suggestions. First, we note that it is useful to separate out workplace and non-workplace (or consumer) product-related injuries. With respect to manufacturers of workplace goods, it would seem reasonable to limit their responsibility under tort law to ten years. Nevertheless, the employer who subjected the worker to the use of an unsafe machine should be responsible for paying his full out-of-pocket losses. If the incident occurred in whole or

in part because of a defect that was present in the structure of the machine at the time it was sold, the employer should have the right in an arbitration proceeding to place the cost of the accident on the manufacturer of the machine (to the extent that the defect was the cause of the accident in question).

With respect to consumer goods, a slightly different approach is suggested. Again, one would begin with limiting the manufacturer's responsibility, in tort law, to a ten-year period from the time of sale. Nevertheless, if a consumer was injured by a defect that was present in the product at the time it was sold (e.g., a long-term risk from a pharmaceutical) but that did not manifest itself until after ten years, the manufacturer should be subject to liability for the injured party's actual economic losses.

The issues involved with respect to injuries caused by such products should be determined in an arbitration proceeding. This should reduce friction costs and expedite the process whereby the issues are determined. See p. 229.

DUTY LIMITATION FOR UNAVOIDABLY UNSAFE PRODUCTS

Introduction to the Problem

Although Section 402A of the Second Restatement of Torts is said to be predicated on strict liability, it expressly states in Comment K that a manufacturer is not to be held liable for injuries caused by products "which, in the present state of human knowledge, are quite incapable of being made safe for their intended and ordinary use." See Restatement (Second) of Torts Sec. 402A, Comment K (1965). This provision tends to balance the need to compensate persons injured by unsafe products with a countervailing social policy to encourage the manufacture of products which are deemed to be useful. It does not thwart the goal of placing the incentive for risk prevention on parties best able to accomplish that goal because, by definition, the manufacturer is powerless to prevent the injury.

The main product area in which Comment K has been applied is pharmaceuticals: the "product" example given in Comment K is the

Pasteur treatment of rabies. The author of that comment chose a very strong case to support the "unavoidably unsafe product" exception to Section 402A. In that regard, the comment (in accordance with the medical knowledge of the time) assumed that rabies would cause immediate death. Therefore, the manufacturer of the Pasteur treatment (which itself may cause death or serious injury) should not be deemed liable for that consequence. As cases collected in our Legal Study show, Comment K has been applied where the consequence suffered by the plaintiff as the result of taking the drug is considerably worse than the disease it was supposed to alleviate. See Volume II, Legal Study at 28.

If the manufacturer of a pharmaceutical has knowledge of the unavoidably unsafe hazard, it does have a duty to warn users about that risk. See Ch. II at p. 12. Most courts have held that the manufacturer has a duty to warn of risks only if a reasonable person, knowledgeable in the art, would discover them.

The unavoidably unsafe product limitation was not adhered to in at least one case. See Cunningham v. MacNeal Memorial Hospital, 47 Ill.2d 443, 266 N.E.2d 897 (1970) (blood transfusion case--legislatively overruled). Moreover, some decisions, in dictum, suggest that a manufacturer might be deemed strictly liable for its failure to warn about the drug-related hazard. See Ch. II at p. 15.

Comment K of the Restatement deals with unavoidably unsafe products that create risks that are apart from the product's immediate function. The Restatement of Torts would also exempt manufacturers from liability for hazards that are directly related to the products' function. Under this rationale, manufacturers of knives are not responsible for the fact that their product may cut someone, and liquor producers are not responsible for the fact that their product may make someone drunk.

In spite of the fact that the Restatement has indicated that manufacturers of "unavoidably unsafe" products should be exempt from liability, the legal situation with respect to those products appears to be murky. Much of the controversy surrounding the distribution of the Swine Flu Vaccine appeared to be predicated on the supposition that a manufacturer might be

responsible for consequences caused by an unavoidably unsafe product. It would reduce the uncertainty that has led to the substantial rise in product liability insurance premiums if the unavoidably unsafe duty limitation were specifically identified in legislation. If a legislature were to consider this possibility, what are some of the major issues it should weigh?

Proposed Solutions to the Problem

First, does the rationale that underlies the exemption for unavoidably unsafe products still apply today? Subsumed under this question is an issue that goes to the very heart of many controversies in the area of product liability law. If liability were to be imposed on manufacturers of socially useful, unavoidably unsafe products, it might result in the withdrawal of those products from the market or a reluctance to introduce new products. See Industry Study at I-10. This might be deemed an adverse social consequence. Nevertheless, there has been a strong social trend toward compensating persons who are injured by products that are not safe. We question, however, whether the tort system is the proper vehicle for providing compensation for products of this kind. One suggested solution is that injuries caused by unavoidably unsafe products are social costs that must be addressed by government compensation system mechanisms. See Volume IV, Legal Study at 95. On the other hand, some have suggested that the manufacturer be responsible for the out-of-pocket losses that result when a person is injured by an unavoidably unsafe pharmaceutical. It is said that the product should bear the cost of this risk.

Second, a decision should be made as to which products are deemed "unavoidably unsafe." Is this limitation to be limited solely to drugs approved by the Food and Drug Administration? Are there other products whose utility to the society is so great that their manufacturers should benefit from this limitation? A product liability code could resolve this issue.

Summary and Conclusions

It seems unlikely that an unavoidably unsafe duty limitation, even if it were specifically set forth in legislation, would be a major step toward ensuring the availability of "affordable"

product liability insurance. Insurers might still bear a substantial cost in defending and investigating claims: they would have to determine whether a product was "unavoidably unsafe." Nevertheless, if the limitation remains murky or totally abandoned, it could have an adverse effect on product liability insurance availability and cost, especially for small manufacturers of ethical drugs. At the very least, it would be helpful to resolve in a product liability code whether a manufacturer is to be held liable for such risks.

Data collected by our industry contractor suggest that holding manufacturers liable for injuries caused by unavoidably unsafe products might have an adverse effect on the development of useful pharmaceuticals. At this stage we are convinced that Restatement (Second) of Torts section 402a Comment K's exception regarding these products should remain in the law; nevertheless, shielding the manufacturer can leave a seriously injured consumer without compensation. Also, the exception does not fully meet a manufacturer's or liability insurer's interests because they continue to be subject to defense costs as courts and juries attempt to resolve the complex issue of whether a pharmaceutical is unavoidably unsafe and whether the manufacturer provided proper warnings about that hazard.

Long-term resolutions in this topic area seem particularly suited to more major modifications in tort law. It may be that all interests would be in a better position if manufacturers of pharmaceuticals paid all out-of-pocket economic losses relating to personal injuries caused by their products. Tort law's deterrent function might be sustained if the manufacturer were subject to substantial tort fines in situations where they engaged in negligent or reckless conduct.

We are not suggesting that a no-fault system would not present substantial problems of its own. These matters are set forth at p. 217. Rather, the suggestion is that pharmaceuticals and other potentially unavoidably unsafe products may be more appropriate for a no-fault system than products in general.

The Development of Predictable Legal Standards for Product Liability Cases

Introduction to the General Problem

According to many manufacturers and insurers, a basic problem in the tort-litigation system for product liability is the absence of any standards for judging responsibility. Thus, a typical manufacturer asks, "Is there any set of standards that I could follow in the process of manufacturing my product that would guarantee that the product I produce will not subject me to liability under the tort system?" Our Legal Study suggests that at the present time the tort-litigation system's answer to that question is a decided "No." While the liability rules with respect to standards are not as open-ended as some manufacturers suggest, a substantial degree of uncertainty prevails. See Volume II, Legal Study at 32 & 39.

There were three areas that were brought to the attention of the Task Force that have the potential, at least, for bringing more certainty into the area of standards. As our discussion will show, they often promise more than they deliver; nevertheless, they deserve careful consideration. See Hoenig, Memorandum to the Interagency Task Force on Product Liability, Products Liability Problems and Proposed Reforms (submitted November 1, 1976); Raleigh, The State-of-the-Art in Products Liability; A New Look at an Old Defense (paper presented to a symposium held at the Ohio Northern University, Pettit College of Law, October 22, 1976). These areas include a state-of-the-art defense, a compliance with legislative and administrative standards defense and the regulation of expert testimony.

Proposed solutions to the Problem

State-of-the-art defense

Introduction to the Problem

A "state-of-the-art" defense would provide manufacturers with a liability shield when their product was designed or manufactured in conformity with the prevailing customs in their industry. The benefits to manufacturers of such a defense are

clear. They could market their products with virtual assuredness that the product would not be later judged to be defective. Our Insurance Study suggests that if a reliable state-of-the-art defense could be established, it probably would have a positive long-range impact on product liability insurance--both as to availability and cost. See Insurance Study at 4-94.

A state-of-the-art defense was included in Proposed Kansas Senate Bill No. 852. This provision shielded manufacturers from liability when their products were "in conformity with the generally recognized and prevailing state-of-the-art in existence at the time such plan, design, methods, standards, and techniques were prepared or used." See Kan. Proposed Sen. Bill No. 852, Subsection II of Section VIII (1976).

Nevertheless, it seems unlikely that many legislatures would be inclined to adopt a state-of-the-art defense that was based exclusively on industry customs. See W. Prosser, Torts at p. 167 (4th ed. 1971). As long ago as 1932, Judge Learned Hand put such a rule to rest in the famous case of *The T. J. Hooper*, 60 F.2d 737 (2d Cir. 1932). In that case, defendant's tugboat was not equipped with a radio receiver and therefore was unable to receive timely weather warnings. It was not a regular custom of such carriers to have equipment of that kind. Judge Hand stated that "in most cases reasonable prudence is in fact common prudence; but strictly it is never its measure; a whole calling may have unduly lagged in the adoption of new and available devices." 60 F.2d at 740. Judge Hand found that the tugboat owner could obtain an adequate radio receiving set at a small cost and held that it was negligent in failing to procure one.

If the rule were otherwise, it might have an adverse effect on risk prevention; manufacturers could sit back and not worry about product liability as long as they followed the custom they themselves set. See Advisory Committee (4th meeting, June 27, 1977), remarks by Ms. Anita Johnson, pp. 78-80 ("Society as a whole would not accept the proposition that industry should determine its own obligations").

Proposed Solutions to the Problem

Our Legal Study found that all cases are at least in accord with the T. J. Hooper decision. Evidence of the "state-of-the-art" is admissible in the defense of a case, but it does not represent an absolute limit on a defendant's liability. Some courts have taken a broader view of the term "state-of-the-art." They do not look merely at whether the defendant manufacturer "unduly lagged" in adopting safety practices that were beyond the custom of the industry; rather, they have the jury consider the practical and technological feasibility of employing an alternative design to improve the safety of the product.

In one jurisdiction, Illinois, a middle level appellate court has gone even further. That court held that the state-of-the-art is not only inconclusive as a matter of defense, but it is also irrelevant. See Gelsumino v. E. W. Bliss Co., 10 Ill. App. 3d 604, 295 N.E.2d 110 (1973). Also, cases can be found in our Legal Study where courts were less than careful in analyzing the practicality of implementing corrective measures that were suggested by plaintiff's expert witnesses.

Although it has been suggested that ordinary competitive factors are a sufficient force to make manufacturers produce safe products, the economic analysis undertaken in our Legal Study suggests that making a state-of-the-art defense absolute may aggravate the situation in industries with a level of safety that is less than economically efficient. An additional incentive is needed to spur some manufacturers to invest in product safety research. See Volume IV, Legal Study 113-114. (See also the remarks of Ms. Anita Johnson, p. VII-29). Can this be done without totally ignoring the state-of-the-art?

One approach that has been suggested is that where a defendant shows that the alleged defect in his product comported with custom in his industry, a presumption should arise that the product was not unreasonably unsafe and that the plaintiff should have to produce substantial evidence that would show, in light of economic cost and practical application, that the practice was unsafe. Some have suggested that this approach would be fair if the alleged defect in the design of the defendant's product not only conformed with the custom of the industry, but also was in

conformity with a product standard developed by a neutral and reliable source. See the discussion of Standards Developed by the American National Standards Institute. Chapter IV, p. 14.

jd A second approach is to authorize legislatively the creation of product standards. They would be developed by a neutral source and automatically updated. While this approach would be unduly costly and almost impossible to implement as a general matter, it might be practical with respect to some products that do not change substantially in function or design. Ladders might be an example. For a discussion of this problem, see Industry Study at VI-28-32.

A third and simpler approach is to require that the court instruct the jury to focus on what was possible as a practical matter at the time the product was manufactured. The jury would focus on the technology and knowledge of product risks available at the time the product was manufactured. If the standard were properly applied, it would not diminish a manufacturer's incentive to prevent risks.

If a state-of-the-art defense, as set forth in this last alternative, were adopted, it would not immediately result in a reduction in liability insurance premiums. Most insurance underwriters would probably take a "wait and see" approach until the law was being contested and interpreted in the courts. See Insurance Study at 4-94. Also, cases would still be complicated by conflicting expert opinion as to what state-of-the-art was possible as a practical matter at a given time.

Summary and Conclusions

We conclude that it would be inadvisable for product liability law to adopt a state-of-the-art defense based on the standard customarily utilized in an industry. This would tend to subvert the Task Force's goal of placing the incentive for risk prevention on the party which is best able to accomplish that goal. On the other hand, courts that deem the technological state-of-the-art irrelevant fuel the uncertainty in product liability law that has helped bring about a problem.

We suggest that those who might draft a product liability code provide that, in cases based on improper design, the trier of fact only subject a defendant to liability if his product failed to conform to the state-of-the-art that was a practical and reasonable standard at the time of manufacture. In making that judgment, the trier of fact would consider, among other matters, the technology available at the time of manufacture, the cost and practicality of alternative design approaches, and the custom in the industry.

The law might be made more precise for some products. If the court finds that the alleged defect in the product conformed to a product standard developed by a neutral and reliable source, a strong presumption could arise that the product was not defective. This presumption could, however, be rebutted by clear and convincing evidence that, in light of the technology and cost factors existing at the time the product was manufactured, the product was unsafe.

The cost factors involved in designing such standards for all products would appear to be prohibitive.

Compliance With Legislative or Administrative Standards Defense

In general

Introduction to the Problem.--As indicated in the last section, it has been suggested that a manufacturer's compliance with industry (or voluntary) standards be made a defense in tort law. A stronger argument that has been made to the Task Force is that a manufacturer should not be subject to liability when his product was in compliance with a relevant legislative or administrative standard.

First, it is contended that such standards evolved from a neutral forum where all interest groups have had a chance to be heard.

Second, it is said that the standard evolved on the basis of a study by experts and that it is inappropriate to allow a jury of laymen to second-guess a judgment of this kind.

Third, it is noted that violation of such standards is usually regarded as negligence in and of itself, subjecting the manufacturer to liability. Therefore, it is suggested that if a product complies with relevant statutory or administrative regulations, the manufacturer should not be subject to liability for injuries it causes.

Finally, it is observed that a compliance with a legislative or administrative standards defense may create an economic incentive toward such compliance. Likewise, failure to allow the defense may be a disincentive toward compliance. In light of the fact that governments often lack a sufficient number of personnel to enforce such standards, it is suggested that the defense may benefit consumers.

With respect to the effect of such a defense on insurance rates, our Insurance Study reflects that it is similar to state-of-the-art. It may have a long-range effect but most insurers would wish to take a "wait and see" attitude in order to determine its effect on jury verdicts. Insurance Study at 4-91.

Proposed Solutions to the Problem.--Our Legal Study shows that the overwhelming number of courts that have confronted the issue have rejected a strict compliance with legislative or administrative standards defense. See Volume IV Legal Study at 132. Their main reasons are threefold. First, there is an assumption that such standards may often turn out to be no more than a rubber-stamped version of existing, voluntary standards adopted by manufacturers within an industry. Second, it is argued that no matter how carefully the standards were drafted, they could not comprehend every circumstance in which the product might be dangerous in normal use. Third, it is suggested that a lapse of time can cause safety standards to become outdated: the standards may fail to reflect advances in the state of the art.

With respect to the first argument, manufacturers contend that legislative and administrative safety standards are rigorous in nature and that the assumption that they are only base line in nature is outdated. While the Interagency Task Force did not make a detailed study of the matter, it does seem that the situation might be different depending upon the practice and

experience of the particular regulatory body or rules. Compare McDaniels v. McNeal Laboratories, Inc. 196 Neb. 190, 241 N.W. 2d 822 (Neb. 1976), (holding that a determination of the Food and Drug Administration should prevail in the absence of proof of inaccurate, incomplete, misleading, or fraudulent information furnished by the manufacturer in connection with such federal approval or later revisions thereof) with Raymond v. Riegel Textile Corp. 484 F.2d 1025 (1st Cir. 1973) (finding that a standard was promulgated under the Flammable Fabric Act was outdated).

With respect to the second argument, one might assume the developers of safety standards could not possibly see all circumstances and conditions under which the product might cause harm. But if they did not foresee the risk that befell plaintiff, is it fair to charge the manufacturer with that responsibility after the fact? Assuming that the standard was developed under a rigorous procedure and that the standard was intended to protect against a condition or alleged "defect" involved in the particular litigation, there is some force in the contention that the product should be deemed "reasonably" safe.

With respect to the third argument, a court might determine whether the standards were subject to continuous updating. The manufacturer should not be permitted to sit back and rely on a government standard that is technologically out-of-date. See the Advisory Committee (4th meeting, June 27, 1977), remarks by Ms. Anita Johnson, p. 80. This is a matter that could be decided by the court as a matter of law.

There would be an incentive toward risk prevention if a manufacturer were given a tort law benefit on the basis of his compliance with a relevant legislative or administrative standard. Nevertheless, this is not a step to be taken lightly--its effect would be to deny an injured party a tort claim. Moreover, a loose application of that defense would permit manufacturers to sit back and rely on out-of-date government standards that may have been compromise efforts when enacted.

On the other hand, if a court finds that the standard in question was objective and rigorous when formulated and also up-

to-date at the time the product was produced, it might be appropriate to regard compliance as a defense Cf. Jones v. Hittle Service Inc., 549 P.2d 1383 (Jan. 1976).

One suggestion made to the Task Force that has the potential of balancing the equities in regard to this defense is to limit plaintiff's damages to his out-of-pocket losses when his injury arose although the manufacturer complied with a relevant legislative standard. Even under this approach, we believe that the court should make a finding that the standard was objectively arrived at and was up-to-date at the time the product was manufactured.

Summary and Conclusions.--In conclusion, there may be some incentive toward risk prevention if a manufacturer was given a tort law benefit on the basis of its compliance with a relevant legislative or administrative standard. Nevertheless, a loose application of that defense could have the opposite effect: it would permit manufacturers to sit back and rely on out-of-date government standards that were compromise efforts when enacted.

Nevertheless, if a court finds that the standard in question was objective and rigorous when formulated and also up-to-date at the time the product was produced, it might be inappropriate to allow the jury to place a higher burden on the defendant. Compare Utah Code Ann. 78-15-6 (3) (1977) (applying a rebuttable presumption in all cases where the alleged defect was in conformity with government standards). See also Jones v. Hittle Service, Inc. 549 P.2d 1383 (Kan. 1976): Restatement (Second) of Torts Sec. 288 C (1965) (requiring plaintiff in all cases of compliance to show that a reasonable person would have taken additional precautions).

At the federal level

Introduction to the Problem.--It has been contended that the arguments in favor of a compliance with legislative or administrative defense are strengthened when such regulations are at the federal level.

First, it is alleged that the very fact that the matter is subject to federal regulation suggests there is a strong need for a uniform rule.

Second, it is contended that when manufacturers comply with a federal rule, they should not be subject to a variety of higher standards imposed by juries in the state system. In that regard, it is observed that the application of variable standards by juries comprise preemption provisions that are thought necessary in the area of public regulation. See Public Law No. 94-284 (5/11/76).

Third, it is argued that federal regulations are likely to be more strict than those at state levels and are therefore more deserving of recognition in tort cases.

Proposed Solutions to the Problem.--The arguments against such a defense at the federal level are similar to those made in regard to the defense in general. Further, it is argued that Congress has indicated both in the Consumer Product Safety Act (15 U.S.C. Sec. 2074(a) and in the National Traffic and Motor Vehicle Safety Act, Sec. 1397(c) that compliance with standards issued under those laws should not exempt persons "from liability at common law. . . .".

In a letter to the Interagency Task Force, the General Counsel of the Consumer Product Safety Commission indicated that, in his judgment, standards promulgated by the Commission "reflect a balancing of factors and often are directed against particular sources of illness or injury. . . ." Further, he stated that the Commission must "make findings of many factors, including the proximate number or types of products affected by the standard, utility, cost and availability of such products, the impact on composition and the disruption or dislocation of manufacturing or commercial practices." Letter to the Interagency Task Force on Product Liability, from Michael A. Brown, General Counsel, United States Product Safety Commission (dated October 14, 1976). This letter is of particular interest to persons investigating this matter because Section VII (a) of the Consumer Product Safety Act (15 U.S.C. Sec. 2056(a)) indicates that the agency is to promulgate safety standards to "prevent or reduce an unreasonable risk of injury" associated with a consumer product (emphasis

added). In that regard, one should recall that Restatement of Torts Section 402A imposes liability for a product that is in a "defective condition unreasonably dangerous. . ." (emphasis added). To the untutored eye, the standards appear to be the same. However, it may be that public regulatory agencies consider different factors than tort law in deciding what is or is not an unreasonable risk. When they do this, it may undermine the argument that compliance with such standards should represent a defense in common law tort suits. See also The Statement of S. John Byington, Consumer Product Safety Commission before the Senate Select Committee on Small Business, 95th Cong., 1st sess. (4/26/77).

Summary and Conclusions.--While the arguments on behalf of a compliance with legislative and administrative standards defense are stronger when the rule has been set at the federal level, problems relating to the variance in the quality and timeliness of the standard remain. Also problems relating to the cost, effectiveness and availability of resources in developing or using standards remain.

For that reason we conclude that it would be inappropriate to treat compliance with federal standards differently than compliance with state standards in the context of product liability law. Our view about this might change if standards for product liability were specially formulated at the federal level.

Regulation of Expert Testimony

Introduction to the problem

The difficulty manufacturers face in trying to determine whether their products will subject them to liability in tort suits is alleged to stem not only from the absence of standards, but also from the failure of some courts to regulate carefully the presentation of expert testimony. Mr. William Wallace, president of the Defense Research Institute stated at a symposium held by the Working Task Force that there are experts "who travel the country (to) testify one day on one subject and the next day on another. . . . courts permit this kind of activity (although) it well may be that the witness knows nothing, or little about (the) product. . . , but because the (witness) is an engineer, he

is permitted to testify in great detail and redesign (the product) in the face of the jury." Working Task Force Symposium (July 21, 1976), p. 83.

The Task Force has been unable to verify whether these "roving bands of experts" exist. Also, the Task Force was sensitive to the fact that Mr. Wallace has a defense attorney's perspective on the product liability problem. Nevertheless, his view about the lack of standards with regard to the process of selection and implementation of expert testimony in product liability cases was confirmed by our Legal Study. See Volume IV, Legal Study at 153-155.

In part, the problem of the biased expert is an inherent shortcoming of the tort-litigation system. Moreover, even if experts are properly qualified and neutral, a jury of laymen is in a very poor position to judge whether their opinion is correct. These are facts that tend to support substantial modifications in the tort-litigation system. Herein, we will discuss possible correctives toward the problem of the biased or unqualified expert with the assumption that the tort-litigation system will continue.

Proposed solutions to the problem

Court appointed experts.--One possible corrective for the biased expert is to grant courts power to appoint experts on their own. This has been done under Federal Rule of Evidence 706. It has been said that the "very presence (of the court expert) has a cautionary impact on the expert for hire whose theories at trial are subject to dispute not only by adversary expert, but also by a neutral court-appointed one." See Mitchell, "Proposed Federal Rules of Evidence: How they Affect Product Liability Practice," 12 Duquesne L. Rev. 551, 577 (1974).

It might appear logical to go one step further and preclude the parties from introducing their own experts: let the trier of fact rely on court-appointed ones. Nevertheless, our Legal Study suggests that there would be severe constitutional problems with that approach. See Volume IV, Legal Study at 161.

Even where the parties are permitted to introduce their own experts, court-appointed experts may be given an aura of infallibility that they do not deserve. This possibility is mitigated by the fact that they are subject to cross-examination by both parties. Also, a rule authorizing court appointment of experts might have a provision that allows the judge, at his discretion, to decline to disclose to the jury that the witness is in fact court-appointed. See Federal Rule of Evidence 706.

The authorizaton of a court-appointed expert probably would not have an immediate impact in regard to the availability of "affordable" product liability coverage. It is uncertain whether the procedure would expedite the reparation process or minimize transactions cost. According to our Legal Study, where impartial medical expert testimony has been used, reaction has been mixed as to its effect on settlement rates and overall cost effectiveness. Nevertheless, it was the considered judgment of our Legal Study that, under the procedure, objectivity was markedly increased. See Volume IV, Legal Study at 164.

A Test For the Qualifications of Experts.--A rule authorizing a court-appointed expert does not, in and of itself, provide guidelines as to who would be a person properly qualified to testify in product liability cases. One approach in that regard would be to require the witness to spend a substantial portion of his professional time in the actual area of his expertise. This has been utilized in a recently enacted Ohio medical malpractice statute. It is probable that this approach might sift out good as well as bad witnesses in product liability cases. A person can be well versed in technical product liability matters even if he does devote substantial time to testifying in cases. In fact he may become more of an expert by so proceeding. On the other hand, it might be questioned whether courts should permit a person to act as an expert where he spends less than a small fraction (10 percent) of his time in actual practice.

A second approach toward "testing" experts in product liability cases would be to require them to be specially licensed. Our Legal Study details why this would be impractical in the area of product liability. See Volume IV, Legal Study at p. 160.

A study of the problem of expert testimony, funded by the National Science Foundation, determined that it was "not feasible to formulate a single rule (for testing court-appointed experts) that (would be) at once sufficiently broad and adequately precise to afford any meaningful assistance to the trial court." Donaher, Piehler, Twerski and Weinstein, "The Technological Expert in Products Liability Litigation," 52 Tex. L. Rev. 1303, 1325 (1974). The approach suggested in this study was to provide a procedure where the main technical issues in product liability cases would be delineated by the counsel and the court at a pretrial hearing. Then, the court would make a preliminary determination as to the qualifications of proposed witnesses. The court would attempt to determine whether:

1. The pervasive discipline, as identified by a given issue, was within the scope of the expert witnesses' background and skills.
2. The self-education the witness has undertaken in respect to the case involved a legitimate application of basic skills.
3. The witness had been sufficiently thorough in applying this self-education to achieve a level of qualification consistent with the technical issues that he will address.

We have been unable to make a determination about the cost of this procedure or whether it would create substantial delay in the trial process. Nevertheless, it would appear to have utility in regard to the large product liability cases. Further, it would appear to act as a deterrent to the presentation of witnesses who are not qualified on the specific issue before the court. Our Legal Study presents a further discussion of this procedure.

Summary and conclusions

Minor modifications in the common law process are unlikely to reach the heart of the problem regarding expert testimony in product liability cases. The problem is that the trier of fact i.e., the jury, lacks the background and skill necessary to

understand the technical issues in a product liability case. It should not be surprising that there is a temptation on both sides, plaintiff and defendant, to present biased expert testimony.

We have identified two approaches that may help thwart that temptation. First, courts might make wider use of court-appointed experts under a procedure similar to Federal Rule of Evidence 706. Second, when experts are utilized in major product liability cases, the court should hold a preliminary hearing to test the qualifications of the experts under a procedure similar to the one outlined in this report.

We do not have data suggesting that these procedures will improve results; we doubt however, that they will harm the present situation, and they may help. We believe that the remedy of arbitration set forth on p. 229 may get closer to the heart of the problems relating to expert testimony in product liability cases. Under an arbitration procedure, an expert could sit as one of the triers of fact. This may act as a sharp disincentive to the parties in regard to the presentation of biased expert testimony. It also may expedite the process of presenting such testimony.

MODIFICATIONS OF RULES RELATING TO CONDUCT ON THE PART OF PRODUCT USERS

Introduction to the General Problem

A great deal of concern on the part of insurers and manufacturers in regard to the current product liability tort-litigation system focuses on rules that relate to the conduct of a product user. For this reason, our Legal Study specifically examined how courts apply these rules and the reader is directed to Volume III, Legal Study pp. 87-129; Chapter II at 19-26.

The problem, simply put, is that manufacturers believe it is unfair for them to bear the entire responsibility for an injury caused by a product when it was brought about, in whole or in part, by improper conduct on the part of the product user. Obviously, this can occur when the product user was the injured party or where it was some third person (for example an employer)

whose improper conduct helped bring about the injury in question. While our Legal Study deals with remedial approaches to this problem in great detail, an overview of the problem and proposed remedial approaches are presented herein.

The most troublesome area involves product misuse: the product is used in a manner not intended by the manufacturer. That problem and its proposed solutions will be considered first.

Problems also arise when a product is used in its intended manner, but the user unreasonably fails to discover a defect or uses the product with knowledge that the defect is in existence. That situation will be considered second.

The Problem of Product Misuse

Introduction to the Problem

A manufacturer of a product may be subject to liability in some states even if the product has been misused. The same result also may occur where the product was used in a foreseeable, but unintended manner (for example, an automobile accident). Thus, while some jurisdictions appear to have confined a manufacturer's responsibility to producing a product that will be safe in an ordinary, intended use, courts in other jurisdictions hold that a manufacturer should have a duty to anticipate foreseeable misuses and to warn against them.

These decisions are predicated on the supposition that the cost of a warning is relatively slight and that the likelihood and seriousness of harm from misuse are relatively great; therefore, the manufacturer should have the responsibility to warn the user or consumer about the pitfalls of misuse. The approach is alleged to place the incentive for risk prevention on the party who is best able to accomplish that goal (the manufacturer). It seems likely that if the manufacturer knew the nature and extent of his duty to warn about misuse at the time of manufacture and could meet his responsibility at a moderate cost, there would be no major problem. But insurers and manufacturers can point to "horror story" court decisions that would not at all comport with this framework. For example, the Supreme Court of Maryland recently ruled that a manufacturer of

perfume was subject to liability when a young woman was burned after she poured perfume on a candle in order to scent it. The court held that a jury could find that the manufacturer should have warned that this substance was flammable. The court took this step although the manufacturer showed that it had no prior knowledge of any incident of this type. See Moran v. Faberge, Inc., 273 Md, 538, 332 A2d 11 (1975). Our Legal Study showed that there did not appear to be too many of these "horror story" cases (see Volume III, Legal Study at 78), but our Insurance Study reflects that it is apprehension about these cases that may be a cause in the rise of product liability insurance premium rates. Insurance Study at 4-94. Also, a recent survey conducted by the Alliance of American Insurers of large (\$100,000+) claims closed during 1975 estimated that alteration or misuse of a product was involved in approximately 35 percent of the 79 cases surveyed. We will next consider some of the proposals that might improve product liability law in this area.

Proposed Solutions to the Problem

Standardizing foreseeable misuses for the purposes of tort law

Most courts agree that a manufacturer has no duty to warn about unforeseeable misuses of products. Our Legal Study's economic analysis of proposed remedies observed that if the law sought to minimize the sum of accident costs and accident prevention costs, a manufacturer should never be subject to liability for unforeseeable misuses of his product. Courts in a number of states have placed a duty on manufacturers to warn about the consequences of foreseeable misuses of their products. Therefore, manufacturers are subject to hindsight determinations as to whether a particular misuse was foreseeable or unforeseeable. Our Legal Study sought to determine whether it would be possible to have a neutral source pre-establish what would be foreseeable misuses of a product for the purposes of tort law. A manufacturer's duty in tort law would be limited to warning about these listed "foreseeable" misuses. Our Legal Study concluded, however, that this would not be possible as a practical matter. See Volume V, Legal Study at 43.

Plaintiff's misuse of products and comparative fault principles

One is still left with the problem of the "foreseeable misuse" and the manufacturers' duty to warn about it. In that connection, it has been strongly argued that the injured party himself should bear some responsibility for the accident when he has misused the product. A few courts, using a comparative fault or comparative responsibility system, have allowed the trier of fact to compare the responsibility of the manufacturer and the injured party when there has been a misuse of the product. The trier of fact is permitted to reduce the plaintiff's award based on the extent of his responsibility for the accident in question.

While this approach would not meet a manufacturer's "need to know" in advance about its duty to warn about misuses, it does provide a lubricant that may be of use in the "horror story" cases. In the viewpoint of some, this approach would thwart the goal of having a person injured by an unsafe product receive "reasonable" compensation for his or her injury. In that connection, however, it should be recalled that if the plaintiff had used the product in its intended manner, he would not have been injured. On the other hand, in a limited number of cases it could be found that a reasonable person might misuse the product in the absence of warning or proper instructions from the manufacturer. In such situations it would seem improper to reduce plaintiff's award.

As is the case with most of the more settled "reforms" in the tort-litigation system, insurers are uncertain as to whether this approach would have an impact on the price or availability of insurance. See Insurance Study at 4-95.

Alteration or misuse of a product by a third party--shifting responsibility

A special case of product misuse, which usually arises in the workplace, occurs when the product has been altered or modified by a third party. The product alteration or modification causes an otherwise safe product to become dangerous or defective. The original manufacturer may still be subject to liability in this situation if it could be shown that he could foresee that alteration or modification would occur. Because of restrictions

in third-party recovery rules in most states, the manufacturer usually will be unable to shift the cost of the accident on to an employer who made the alteration. See p. VII-72. In light of these facts, the State of Utah has enacted a law that would shield a manufacturer from liability when "a substantial contributing cause of the injury was an alteration or modification of the product." Utah Code Ann. Sec. 78-15-5 (as amended, 1977).

The main argument against this approach is that the manufacturer should bear some responsibility for warning about a hazard when he can reasonably foresee that an employer or user might alter or modify the product so as to make it dangerous. Application of this burden would place the incentive for risk prevention on a party who, as a practical matter, may be best able to accomplish that goal. Nevertheless, it is usually the employer who is actually in the best position to avoid the injury--he has altered or modified the product. But an employee injured by such a product cannot sue that employer because of the bar on such suits in Worker Compensation statutes. If a legislature were to remove this bar to suit whenever a worker could show that his injury was caused in part by the fact that his employer altered or modified a machine, this would have extremely serious cost implications for Worker Compensation systems.

It would appear that the significant product alteration cases occur in the area of the workplace injury. In that context, one potential solution to the problem is to permit manufacturers sued by employees in this context to shift responsibility back to the employer. As the discussion at p. VII-83 shows, this also has an adverse cost effect on the Worker Compensation systems, but that discussion suggests that serious consideration should be given to that approach as a solution to the product misuse problem. The problem could also be resolved if Worker Compensation were made an exclusive remedy for employees who are injured in the workplace. See p. VII-103. These approaches have the potential of being fairer to the injured employee than the approach taken in the newly enacted Utah statute.

The Problem of Plaintiff's Contributory Fault or Assumption of Risk and Proposed Solutions

A plaintiff's conduct may be relevant in regard to a product liability claim aside from the situation where he may have misused the product in question. This may occur in at least two situations. First, it may arise when plaintiff fails to discover a defect in a product, and that defect causes his injury. If a reasonable person would have discovered the defect, this would be deemed "contributory negligence" at common law, and plaintiff's claim might be barred altogether. Under strict liability, most courts that have faced the question have followed Comment n of the Restatement (Second) of Torts Section 402A and have held that plaintiff's contributory negligence is irrelevant; thus plaintiff has recovered full damages in this situation. See Chapter II at p. 22.

The second situation arises when plaintiff discovers a defect in a product (for example, a flaw in a tire) and continues to use the product anyway. In this case, many courts have again looked to Comment n of Restatement (Second) of Torts Section 402A and held that plaintiff's claim is totally barred. Some courts have explained this result by stating that a plaintiff in this situation has "assumed the risk" of the accident that befell him. See Chapter II at p. 25.

Thus, the Restatement has created an important dichotomy between persons who engage in unreasonable conduct: those who utilize a product when they have failed to discover a defect are strongly favored over those who utilize a product after they have discovered that defect. As might be anticipated, this dichotomy has caused much trial court litigation and many appeals over the issue of whether or not plaintiff "knew" of a particular defect at the time he utilized a product.

As our Legal Study makes clear, the adoption of a comparative fault or comparative responsibility system in strict liability actions has the potential benefit of eliminating the need to draw a shadowy distinction between "contributory" negligence and "assumption" of risk. See Volume V, Legal Study at 59-60. This result would help expedite the judicial process. The jury would

simply look at plaintiff's conduct and reduce his damages in the amount it thought proper.

It has been argued that this type of system is inappropriate in strict liability cases. In effect, it is said that there should be no "contributory negligence" defense when the basis of liability is not negligence. This argument appears to subvert common sense in the interest of a conceptual problem. One can look at comparative responsibility of each party in a strict liability action. Therefore, the main problem legislatures should be concerned with is an underlying policy judgment: should a product user have a duty to learn of defects that a reasonable person would discover?

In that regard, a legislative body must exert extreme care in formulating a comparative responsibility law. One precept of strict product liability law is that a product is supposed to meet the reasonable expectations of a consumer. In that connection, it may be inappropriate for the law to require the consumer to inspect a product for defect. See Twerski, From Defect to Cause to Comparative Fault--Rethinking Some Product Liability Concepts, 60 Marq. L. Rev. 343 (1977). On the other hand, where that defect would be readily apparent to a reasonable person, it may be appropriate to have such an individual bear some responsibility for his injury.

Many courts have already made the judgment that an individual should bear some responsibility for a product-related accident when he uses a defective product after discovering the existing defect. In this situation, however, some courts have gone so far as to bar plaintiff's claim entirely. This may be unfair because situations can arise where a plaintiff might be expected to use the product in question in spite of the existence of a flaw. The defective tire situation may serve as an example--how quickly does a reasonable person change that instrumentality? Where reasonable persons might differ as to whether plaintiff had time to act, it may be appropriate for the jury to decide the case by having the option of reducing plaintiff's damages by the amount he is deemed responsible in regard to the accident in question.

Recently, the Supreme Court of Alaska has considered the utility of comparative fault as a tool in strict liability cases;

its opinion is a resource for any legislature or other group focusing on that issue. See Butaud v. Suburban Marine and Sporting Goods, Inc., 555 P. 2d 42 (Alaska 1976).

A legislature interested in implementing a law that incorporates comparative responsibility should also consult draft legislation that has recently been prepared on the topic of "Comparative Fault" by a subcommittee of the National Conference on Uniform State Laws. See J. Wade. A Uniform Comparative Fault Act-What Should It Provide, 10 University of Michigan Journal of Law Reform 220 (1977).

It should be noted that Task Force resources do not show that a comparative responsibility (or fault) system will result in the lowering of product liability insurance rates. See also ISO Survey, Detailed Analysis p. 90. Nevertheless, our Insurance Study found that many insurers believe that a comparative responsibility system is "inherently equitable" and therefore favor its adoption. Insurance Study at 4-96.

Since this remedy attempts to allocate responsibility on the basis of who is best able to avoid an accident, it would appear to place the incentive for risk prevention on the party or parties who are best able to accomplish that goal. On the other hand, an economic analysis in our Legal Study shows that it may not minimize the sum of accident cost, prevention, and transaction costs. Volume V, Legal Study at 68-71. In that regard, a comparative responsibility or fault system may result in an economically inefficient level of safety. The economic analysis of this remedy in our Legal Study details why the application of a standard of comparative responsibility may cause "an excess of resources" being devoted to accident prevention and avoidance. Again, this involves a value judgment for legislators to weigh in the course of considering a comparative fault remedy. Similarly, legislators must make a value judgment as to whether this remedy deprives a person injured by an unsafe product of "reasonable" compensation for his or her injury.

Modification in Rules Relating to Conduct on the Part of Product Users--Summary and Conclusions

A development that has caused great concern on the part of manufacturers is the fact that some courts have imposed liability on them although a plaintiff or third party has used the product in an unintended manner. A simple solution to this problem would be to cut off liability in such a situation. Nevertheless, where modern products may be complex in nature, certain kinds of consumer misuse may be highly foreseeable and the burden on the manufacturer to warn about these misuses may be relatively slight. This suggests that in some situations it may be proper for courts to impose a duty on a manufacturer to warn about potential misuses of a product.

It would be ideal to allow manufacturers to know in advance about the nature and extent of this duty to warn. Nevertheless, there does not appear to be a readily available neutral source that could formulate the nature and extent of that responsibility.

One potential remedy that mitigates a manufacturer's responsibility for injuries caused by product misuse while still affording protection to a product user is a comparative responsibility system. When there is a case of foreseeable product misuse, plaintiff would have his damages reduced to the extent a jury finds him responsible for the injury he incurred.

A comparative responsibility system can also be utilized when a third party has misused the product and this has resulted in an injury to plaintiff. It has been argued that, the defendant manufacturer should be able to shift a portion of responsibility for the injury on to the third party who misused the product. This might reinforce an incentive for employers to emphasize safe work practices. Most cases of this kind arise in the workplace, and the strongest argument against taking this step is that it would increase employers' insurance costs and disrupt the economic balance of Worker Compensation systems. This remedy is more fully discussed at p. 88.

Where an individual plaintiff has used a product in its intended manner, but unreasonably failed to discover the defect

or used the product knowing of the defect, a comparative fault or responsibility system also provides a lubricant for handling the situation. It eliminates the need to make troublesome distinctions between contributory negligence and assumption of risk and also avoids holding a manufacturer totally responsible for an accident that plaintiff could have easily eschewed. A variety of interest groups are impressed with the inherent "fairness" of the system. On the other hand, it will allow an injured party some recovery although he has technically assumed the risk of the accident that befell him. Also, some economists believe that the doctrine can cause an over investment in accident prevention. Finally, caution must be exercised in implementing this remedy, so as not to diminish the manufacturers' basic responsibility of providing a product "without a defect in light of the reasonable expectations of a consumer."

Part III

Proposed Modifications of Some Basic Product Liability Law Rules that Relate to Damages

PROPOSED MODIFICATIONS OF SOME BASIC PRODUCT LIABILITY LAW RULES THAT RELATE TO DAMAGES

Introduction to the General Problem

It can be forcefully argued that one of the most efficient ways to "reform" product liability law is through modification of the rules regarding damages. In that connection, it should be noted that the variety of substantive rules of law (discussed in other portions of this chapter) may or may not be applicable in a particular case, but every product liability law decision or settlement must focus on damages. Moreover, practical experience in the practice of law reflects that the question of how much damage plaintiff suffered is usually at the heart of the dispute between a plaintiff and a defendant. In the course of settlement negotiations, defendant's insurer will often be willing to concede the issue of liability, but it rarely will accede to plaintiff's demand for damages. Also, a good deal of trial time and effort is devoted to the topic of how much plaintiff should recover.

There are many potential modifications of the law of damages that will not be discussed herein, e.g., the utilization of interest (or lack thereof) on awards, the validity of reducing awards to present value, the use of rehabilitation programs in lieu of damages. Our discussion will focus on five principal areas for potential modifications that came to the attention of the Task Force: attorney's fees, awards for pain and suffering, the collateral source rule, punitive damages, and the utilization of a periodic payment system.

ATTORNEYS' FEES

Introduction to the Problem

As might be expected under the present tort-litigation system, a substantial portion of the premium dollar eventually finds its way into the hands of attorneys. Our Legal Study stated that a (somewhat dated) survey showed that, on the average, 35 percent of a plaintiff's tort award went to his or

her attorney. Volume V, Legal Study at p. 75. When an attorney settles a case (according to the recent preliminary ISO Survey, approximately 95 percent of product liability actions), the contingent fee might be less; when the case goes to a full verdict and trial, the amount may be higher.

While much of the material that came to the attention of the Task Force focused on the significance of plaintiff's contingent fee, the preliminary ISO Survey showed that for every dollar of loss actually paid to an injured plaintiff, an additional 42 cents of expenses was incurred by insurers in total loss adjustment expenditures (It has been reported to the Task Force that the Final Survey expenditures will show the figures reduced to 35 cents). The expense for lawyers comprises about 85 percent of the total of allocated loss adjustment expenses. See ISO Survey, Detailed Analysis, Report 9, pp. 76-81.

As might be anticipated, the ISO data reflect that defense costs are considerably higher in cases that are litigated to a final verdict.

Defense costs may create a special problem for retailers and distributors of products. Anecdotal data suggests that, while they usually do not end up paying the cost of a product liability judgment, they are named as defendants in many cases and must bear substantial defense costs. See Transcript, Advisory Committee (4th, June 27, 1977), remarks by Mr. Joseph McEwen, pp. 24-25.

All of this indicates that remedies that would tend to increase settlement and reduce litigation might lower insurance costs. More broadly, these data show that the Task Force consideration of minimizing the sum of accident, prevention, and transaction costs would be furthered by alternative approaches that reduce the need for participation by attorneys. This matter is one that suggests a careful look at no-fault compensation systems and arbitration (discussed in Section VI of this chapter).

Within the context of the tort-litigation system, the question arises as to whether attorney costs can be reduced and

what effect that would have on product liability insurance premium rates. That topic will be discussed next.

Proposed Solutions to the Problem

A surface analysis might suggest that reduction of attorneys' fees would be likely to result in a corresponding reduction of product liability premium rates. This would appear to be true with respect to defense costs; however, the Task Force received no specific suggestions as to how this might be done within the context of the tort-litigation system (e.g. regulate defense attorneys' fees?) It would appear that remedies that encourage early settlement of cases (or perhaps arbitration) might help achieve this goal. See p. VII-202.

Most of the remedial suggestions received by the Task Force focused on the plaintiff's contingent fee. As the next section will show, it is uncertain as to whether the reduction or elimination of that fee would have any effect on product liability premium rates.

The Contingent Fee--Elimination or Modification?

Will elimination or modification of the contingent fee lower product liability insurance rates?

It should be noted that eliminating or reducing the size of a plaintiff's attorney's contingent fee will not reduce the size of jury awards. Rather, it allows the plaintiff to retain more of that award for his own use. Therefore, on the surface at least, a reduction or elimination of the contingent fee would do more to promote the goal of the plaintiff receiving "reasonable compensation for his or her injury" than it would to ensure availability of "affordable" product liability insurance for manufacturers.

Our Insurance Study reflects that a number of insurers interviewed agreed with this assessment. They believe that a limitation of the contingent fee is called for on "equity" grounds, but they foresee it having no significant impact on insurance availability or price. Insurance Study at 4-96. A few insurers believe that juries deliberately escalate their verdict

in order to compensate plaintiff for his attorney's fee; nevertheless, our Insurance Study offers no data in support of this assertion. Moreover, even those insurers who believe that eliminating or restructuring the contingent fee will lower insurance rates agree that insurers would have to adopt a "wait and see" position before taking action on the matter.

It is true that reduction of the contingent fee might in turn reduce the number of "nuisance" cases brought by attorneys, but this calls for very difficult line drawing. As our Legal Study reflects, it would be unfair to reduce the fee to such an extent that an injured party with a potentially worthwhile case would be unable to obtain the services of an attorney. See Volume V, Legal Study at 83.

Some of the major policy considerations relating to the Elimination or reduction of the contingent fee

There are some obvious negative aspects of the contingent fee system. As our Legal Study demonstrates, it can create a potential conflict of interest between attorney and client with regard to whether a case should be settled. Moreover, the contingent fee system creates a situation in which a person with a successful law suit indirectly pays the legal costs of individuals who have unsuccessful claims. It should be recalled that under the contingent fee system a plaintiff's attorney obtains a fee only when his client is successful.

On the other hand, our Legal Study observed that the simple justice of "no recovery, no fee" appeals to laymen. Most importantly, the contingent fee system provides attorneys for persons who are unable to afford to pay a regular hourly fee. Our Legal Study suggests that government, at either the state or federal level, does not appear willing to undertake the expenditure of providing legal services for persons who might be unable to afford legal services were the contingent fee eliminated. This is the basic reason why, as long ago as 1808, a Committee of the New York State Bar Association found that the contingent fee constituted neither champerty nor maintenance. See Volume V, Legal Study at 77. See also Wyllie v. Coxe, 56 U.S. 415, 15 How. 415, 14 L.Ed. 753 (1853). Even the major defense bar organization appears to acknowledge the necessity for the

contingent fee. In a recent publication, the Defense Research Institute stated that:

Those who abuse (the contingent fee) are small in number, yet they bring the entire profession, and especially those who are conscientious in the use of the system into disrepute. . . . See Defense Research Institute, Products Liability Position Paper 41 (1976).

Finally, our Legal Study suggested that a "fixed fee" or "hourly rate" approach in the area of product liability (assuming that the payments were in accord with the amount received on an hourly basis by defense counsel) would not necessarily eliminate frivolous or nuisance lawsuits. In that regard, the contingent fee, in spite of all the arguments against it, may sift out claims of that type: recall that the attorney receives nothing when he is unsuccessful. Under alternative fee approaches, the attorney would be paid regardless of whether he won or lost. This might reduce an attorney's incentive to advise a client not to bring such a claim.

The contingent fee system would appear to have an adverse effect with respect to injured consumers who have sustained relatively small (less than \$1,000) product liability claims. In that connection, the cost inherent in bringing product liability claims may render it unprofitable for a plaintiff's attorney to undertake minor cases on a contingent fee basis. Nevertheless, the elimination of this system would not resolve this problem.

According to our Legal Study, the main abuse that arises from the contingent fee system is that an attorney who successfully brings a very large claim may receive a greater fee than is reasonable in some cases. Our Legal Study suggests that simply reducing the percentage of the contingent fee on an across-the-board basis, as has been done in the Federal Torts Claims Act,² is not as preferable a sliding scale contingent fee approach as has been undertaken by the Supreme Court of New Jersey. See Trial Lawyers Assoc. v. New Jersey Supreme Court, 66 N.J. 258, 330 A.2d 350 (1974). Our Legal Study suggests that legislation setting forth such a sliding scale should have a provision whereby an attorney might apply for higher fee if he or she can

make a strong showing that the "permitted fee is inadequate in light of all of the circumstances."

Again, it should be noted that we have no firm indication that this approach would result in any reduction of product liability insurance rates. It would simply allow an injured consumer to obtain a greater amount of his damage recovery.

Eliminate Damages for Pain and Suffering and Allow a Court Award Plaintiff his Attorney's Fee

One suggestion that evolved in the course of our study was to eliminate the award for pain and suffering and have the court award plaintiff his attorney's fee based on the total circumstances of the case. The underlying predicate for this "remedy" is the assumption that a plaintiff's award for "pain and suffering" is really a hidden substitute that indirectly awards plaintiff his or her attorney's fee. See Working Task Force Symposium at 20 (Dept. of Comm. July, 1976) (suggestion of Professor Wade).

Proponents of this remedy suggest that it would offer both practical and conceptual advantages over the existing system. First, there would be a reduction in the size of awards due to the curtailment of pain and suffering damages. Second, allowing the court to set a fee would ensure that it would be reasonable in the circumstances.

While the suggestion does have some appeal, it would be subject to strong opposition from the plaintiff's bar and also to constitutional challenges. Moreover, it would be time-consuming and difficult for a court to set a "reasonable fee." Recall that the contingent fee system works on the basis of an attorney's "wins" making up for his "losses." Thus, the fee would have to be set somewhat higher than a "normal" hourly rate so as to offset those cases in which the lawyer earned no fee.

A second problem with the proposal concerns settlements. According to preliminary ISO data, approximately 95 percent of product liability claims are settled. In such cases the matter of the attorneys' fees would have to be either passed upon by the court (with a substantial increase in judicial time) or

negotiated between the two attorneys (with potential conflict of interest on the part of the plaintiff's attorney). A third problem with the proposal is that it contradicts the established principle of American jurisprudence that each party must pay his own attorney's fees regardless of the outcome of a case. If this principle were to be overturned for victorious plaintiffs, the question would naturally arise as to whether the defendant would be entitled to recover his lawyer's fee if he prevailed in court.

Finally, the suggestion assumes that there is no intrinsic value in damages awarded for pain and suffering. This is a issue that deserves separate consideration. See p. 64.

Impose a Penalty For Filing Suits Without Reasonable Cause

Insurers' main objection to the contingent fee is that it may prompt attorneys to file suit where there is no reasonable basis for doing so. It is argued that this is a matter that can be handled directly--without tampering with the contingent fee system. In that regard, Section 41 of the Illinois Civil Practice Act (as amended, 1976) provides that "allegations and denials, made without reasonable cause and found to be untrue, shall subject the party pleading them to the payment of reasonable expenses actually incurred by the other party by reason of the untrue pleading, together with reasonable attorney's fee to be summarily taxed by the Court. . . ."

It should be noted that this legislation applies to allegations set forth by both parties, not just the plaintiff. A practical problem with a statute of this type is that it may only be effective if defendant's claim can be brought against plaintiff's counsel himself. It is unlikely that many plaintiffs will be financially able to respond to such a claim or (more importantly) be able to make a judgment about the reasonableness of pleadings in lawsuit.

It is much too early to learn whether the Illinois act will have any effect on product liability insurance premium rates. Also, it is too soon to know whether it will have any adverse effect such as deterring attorneys from bringing claims that deserve a day in court.

As with many other remedies considered by the Task Force, this one has a surface appeal, but deserves very serious consideration before it is embraced by any legislature. This act focuses only on factual pleadings. Some sources have called for broader legislation that would penalize plaintiffs from bringing "frivolous suits." If properly construed, this type of legislation might be more effective than the Illinois Act in eliminating unwarranted litigation; however, statutory language of this scope is subject to the danger of having suits brought under novel or unusual legal theories being placed within its "web." This potential flaw would produce a serious adverse effect on the development of the common law.

Summary and Conclusions

While most proposed solutions to the product liability problem that relate to attorneys' fees focus on the plaintiff attorney's contingent fees, data suggest that it is defense costs that directly affect the cost of product liability insurance. Remedies that foster settlement and decrease the need for litigation may reduce this cost.

The contingent fee may, on occasion, tempt an attorney to bring a frivolous lawsuit. To alleviate this problem, it may be more logical to penalize those specific attorneys by imposing sanctions against them (such as taxing them with defense costs) than it is to abolish the contingent fee system.

The greatest abuse in the contingent fee system would appear to arise in some high verdict cases. In such situations an attorney may recover a windfall. For that reason some state courts have adopted a sliding scale contingent fee system. While this system makes sense, it may be unfair to attorneys in situations where they have devoted considerable time and effort to a case that they are deserving of a fee that is above the scale.

It would appear that contingent fee reform that precludes a windfall flowing to a plaintiff's attorney will do more to ensure that a person injured by a product obtains a "reasonable" amount of damages than it will ensure the availability of product liability insurance at a "reasonable" cost.

While the suggestion of coupling the elimination of awards for pain and suffering with having the court award plaintiff's attorney his fee is intriguing, we believe that practical difficulties connected with its implementation preclude its utilization at this time.

REGULATION OF DAMAGE AWARDS FOR PAIN AND SUFFERING

Introduction to the Problem

The plaintiff who prevails in the tort action for personal injury is entitled to recover two basic types of damages. First, he recovers "special damages" which represent his past, present, and future out-of-pocket expenses wrought by the accident. These are usually composed of medical expenses and lost earnings. Second, plaintiff is entitled to recover some amount for what is called "pain and suffering." In most states there is no fixed limit on the amount of damages that can be awarded for pain and suffering--it is left to the jury's discretion. The only limitation on the jury is a rather broad common law boundary enforced by the courts. Courts may overturn a jury award if it is "shocking" or "unconscionable."

Data set forth in the Preliminary Report of the ISO Closed Claim Survey reflect what had been speculated in the past: the amount of damages awarded for pain and suffering frequently exceeds the aggregate award for all out-of-pocket losses. See ISO Survey, Detailed Analysis, p. 37 (1976). A prior study had estimated that for every dollar awarded for out-of-pocket loss, a dollar and fifty cents was awarded for pain and suffering. See J. O'Connell and R. Simon, Payment for Pain and Suffering, Appendix V at 10 (1972). According to the preliminary ISO data, pain and suffering awards were "clearly a very large portion of the payment at the higher levels." See ISO Survey, Detailed Analysis, p. 39 (the report did not state what "higher levels" were--it would appear to occur above the \$20,000 level).

According to our Insurance Study, some underwriters are skeptical as to whether modifications in the law relating to pain and suffering would be a practical way to reduce insurance rates. They fear that courts would find a way to "get around" any limitations. Other underwriters are more optimistic: they

believe that modifications in the law relating to pain and suffering would have a far greater impact on liability insurance premiums than proposals to limit the contingent fee. These underwriters believe that it is not necessary to eliminate awards for pain and suffering: if some boundaries could be placed on those awards, it would reduce uncertainty and thereby mitigate the "apprehension factor" that has contributed to the rise in product liability insurance rates. See Insurance Study at 4-96.

Moreover, this can be seen as a practical matter since awards for pain and suffering are almost totally speculative in nature.

Our Legal Study considered the reasons underlying the awarding of damages for pain and suffering. In that connection, it is important to note that the award is really twofold. The term "pain" is generally used to describe the physical or physiological distress that the plaintiff incurred as a result of the accident. The word "suffering" describes the plaintiff's mental or emotional response to the injury.

The award for pain and suffering arose in early common law as a substitute for an injured plaintiff seeking personal "vengeful retaliation." In these cases, the defendant had often committed an intentional wrong. This rationale would seem to have little application to cases arising under strict liability.

A second rationale is that awards for pain and suffering have an important deterrent function. In that regard, the very problem with the award, its uncertainty, is supposed to spur manufacturers on to produce safer products. We have been unable to make any findings as to whether this deterrent effect works. We do know that the general product liability problem has caused manufacturers to devote more attention to product liability prevention techniques. See Industry Report at I-9 to I-11.

The third rationale goes to the very heart of the matter. It is said that awards for pain and suffering are a reasonable attempt to provide some compensation for the serious discomfort that plaintiff has endured. See Volume V, Legal Study at 106-107. Some proponents of awards for pain and suffering go even further and suggest that there is an economic overlay to the award because persons would be willing "to pay to avoid pain and

suffering." Proponents also argue that flexible awards for pain and suffering allow a jury to take into account each individual's "personality and uniqueness."

On the other hand, some serious studies question whether monetary awards for pain and suffering do anything to alleviate the symptom they are alleged to address. See J. O'Connell & R. Simon, Payment for Pain and Suffering (1972); Peck, Compensation for Pain: A Reappraisal in Light of New Medical Evidence, 72 Michigan L. Rev. 1355 (1974).

A fourth rationale is that awards for pain and suffering provide an indirect method whereby a plaintiff can be reimbursed for his attorney's fees. See, e.g., Seffert v. Los Angeles Transit Line, 56 Cal.2d 498, 364 P.2d 337, 15 Cal. Repr. (1961). This appears to be especially important with smaller claims.

This rationale has been criticized, however, as carving out an unregulated exception to the general rule that successful parties may not recover their litigation expenses except where that result is specifically provided by statute. See Peck, supra, at 1373-74.

On the basis of our study, it would appear that if a plaintiff is to be awarded his attorney's fees in the cases where he is successful, this should be handled directly. See p. 61. In that connection, the preliminary data from the ISO Closed Claim Study suggest that a plaintiff may recover substantially more or less than his attorney's fees under heading of awards for pain and suffering depending on the level of the claim. See ISO Detailed Analysis, p. 39.

Also, the accuracy of this indirect method of compensating a plaintiff for his attorney's fees may be compromised by the fact that the contingent fee itself may vary based either on the amount of the award (in some states) or whether the claim is settled. In sum, pain and suffering awards are an illogical and awkward method of compensating a plaintiff for his attorney's fees.

While the "indirect attorney fee" argument does not support the proposition that unregulated awards for pain and suffering

should continue, legislative reform efforts to abolish or sharply limit awards for pain and suffering should take into account the relationship between the two. This relationship is discussed in our section on the topic of contingent fees, p. 61.

Proposed Solutions to the Problem

Abolish Awards for Pain and Suffering

It is basically a value judgment as to whether awards for pain and suffering are worth the cost of impact on product liability insurance rates. While the final results of the ISO Closed Claim Survey will be more specific on the point, it would appear that the mere apprehension about large pain and suffering awards have had an impact on persons underwriting product liability insurance. See Insurance Study at 4-96. As has been indicated, there is controversy as to whether the awards have any true purpose at all.

If they were to be totally abolished, legislatures should be prepared to justify this step fully; otherwise, such legislation would encounter serious due process problems. See Volume IV, Legal Study at 81. Moreover, there would have to be an especially sound legislative basis for a selective abolition in the area of product liability. Cf. Graley v. Satayatham, 74 Ohio Op.2d 316, 343 N.E.2d 832 (Ohio C.P. 1976). (Restriction on amount of award for pain and suffering in Ohio Medical Malpractice law held to violate the equal protection clause.) Any alteration in awards for pain and suffering may run afoul of particular provisions in state constitutions. See Volume V, Legal Study at 109.

Again, if a total abolition of awards for pain and suffering were to be undertaken, a legislative body should also concentrate on problems relating to the contingent fee. In that regard, the elimination of awards for pain and suffering would, pro tanto, lower the amount an attorney would receive in his contingent fee. This reduction, while a welcome matter to some, may as a practical matter deter attorneys from undertaking viable product liability cases.

Limit Awards for Pain and Suffering to a Specific Multiple of Special Damages

It has been suggested to the Task Force that damages for pain and suffering be limited to a maximum ratio (of 2 to 1 or 3 to 1) in relation to "special" out-of-pocket damages.

Neither our Legal nor Insurance Studies found this approach to be satisfactory. First, this approach may give a plaintiff an incentive to malingering or otherwise maximize his out-of-pocket expenses. Second, the approach may be unfair to persons who have lower earnings or medical costs. Finally, the amount of pain and suffering an individual endures may not be directly related to his out-of-pocket expenses. See Insurance Study at 4 - 96 & 97.

Limit Awards for Pain and Suffering to a Fixed Ceiling

This approach has been used in a California medical malpractice law. See Cal. Civ. Code Section 3333.2 (West 1975) (a \$250,000 limit). A proposed Senate Bill in Kansas (SB 852) had a \$25,000 limitation. The Supreme Court of Illinois suggested in dictum that a ceiling limitation on damages for pain and suffering might be constitutional so long as an unrestricted recovery of actual expenses was permitted. See Wright v. Central DuPage Hospital Association, 347 N.E.2d 736, 746 (Ill. 1976).

It has been argued that a high level ceiling approach (\$100,000) would have little effect on product liability insurance rates since pain and suffering awards only reach that level in a small percentage of cases. The final ISO Closed Claim Survey should be studied in connection with this argument. Obviously, a ceiling must be set in light of what is fair and reasonable to plaintiffs and what might be effective in terms of reducing product liability rates. Our Insurance Study suggested that a ceiling limitation might have some effect on product liability premium rates because it would reduce uncertainties that now exist. (Insurance Study at 4-97). Perhaps the strongest argument against this approach is that it might unfairly affect those who have been most severely injured, e.g., a paraplegic. Again, a value judgment must be exercised by the legislature considering such a proposal.

Limit Awards for Pain and Suffering to a Fixed Schedule Based on the Type of Injury Plaintiff Endured

The best method to "limit damages" for pain and suffering in the view of our Legal and Insurance Studies was a limit based on the type of injury plaintiff endured. Both Worker Compensation System statutes and some automobile no-fault statutes provide a resource for a legislature considering drafting such a statute.

Although this may be the best method of limiting pain and suffering damages, a number of arguments have been raised against it. First, it is arbitrary, e.g., the impact of an injury that limited the use of one's legs would be greater on an active person than on a more sedentary individual. Second, a difficult judgment would have to be made as to whether "mental suffering" would be included in the "schedule." Third, it may result in a jury awarding the highest amount possible for each category. Fourth, litigation could arise as to whether plaintiff injury fell "within the words" set forth in the statute. This has already occurred in the areas of Worker Compensation and automobile no-fault. See Falcone v. Branker, 135 N.J. Super. 137, 342 A.2d 875 (1975) ("Permanent Serious Disfigurement"). Finally, there are esthetic arguments raised against this approach. How much is loss of an eye worth?

Summary and Conclusions

As compared to other proposed modifications in the tort-litigation system, proposals that would either limit or eliminate damages for pain and suffering are more likely to have a long-range effect on stabilizing product liability insurance rates. While we have attempted to identify most of the specific arguments for and against such limitations, value judgments abound in this area. All things considered, it would appear that approaches that would limit (rather than eliminate) damages for pain and suffering have the greatest potential of balancing the variety of considerations that should be considered in formulating the product liability law reform. It should be remembered that since this reform has the potential of applying in all of tort law, to its application in the field of product liability, alone, should be justified.

MODIFICATION OF THE COLLATERAL SOURCE RULE

Introduction to the Problem

The "collateral source rule" is a principle of tort law under which a defendant is not permitted to take "credit" for any money that an injured plaintiff received from another (collateral) source. The rule embraces both payments for loss of wages and medical expenditures.

It has been suggested to the Task Force that this rule should be modified. It is said that the rule is economically wasteful in that it permits a plaintiff to obtain double damages. Perhaps the prime instance of this is the situation where an injured plaintiff has already been compensated for his medical loss by health or accident insurance.

Nevertheless, the collateral source rule does not always result in a successful plaintiff obtaining double damages. Sometimes, the "collateral source," e.g., a Worker Compensation carrier (or in some instances the government), is subrogated to a plaintiff's claim against the defendant.

Will abolition or limitation of the collateral source rule reduce the cost of product liability insurance? Obviously, some cost savings will be achieved if double recoveries are eliminated. Again, a primary example of this is where plaintiff has already had his medical cost paid by private insurance. We have no data as to the number of instances in which plaintiffs have such insurance. Compare U.S. Social Security Bulletin, p. 5 (June 1977) (Suggesting that a substantial portion of the population is covered by some form of private medical insurance). Preliminary ISO data suggest that medical losses represent approximately 20.9 percent of the cost of product liability claims. (ISO Detailed Analysis, p. 34). Our Legal Study suggests that the primary effect of eliminating the double recovery aspect of the collateral source rule would be with regard to reducing medical losses: this study assumes that only a small percentage of persons have private insurance covering loss of wages where the insurer has no right of subrogation against a tortfeasor. See volume V, Legal study at 149.

It should be noted that modification of the collateral source rule would not increase the cost of accident or health insurance where those insurers have no right of subrogation. Our Insurance Study indicated that some underwriters believe that a modification of the collateral source rule with respect to this type of insurance might have a significant long-range impact on both product liability insurance rates and availability. See Insurance Study at 4-98.

On the other hand, it should be noted that in the instances where the "collateral source" is an insurer with a subrogation right, a modification of the collateral source rule would tend to shift insurance cost from a product liability insurer onto the collateral source insurer. A prime example of this would be Worker Compensation. We have not been able to secure data that would support a finding about the impact of such a change on the cost of Worker Compensation insurance. We are uncertain about the extent to which Worker Compensation insurers are presently utilizing their subrogation rights. See p. 95. Information on this issue will be available in the final ISO Closed Claim Survey.

There are two basic arguments against proposals that modify the collateral source rule. The first argument is that a "wrongdoer" should not have the benefit of a "windfall": it is contended that it is "morally better" that the plaintiff have the benefit of a "windfall" than the defendant. See Volume V, Legal Study at 138.

A strong rebuttal can be made to this argument in the area of product liability. Defendants in product liability cases are often held responsible on a strict liability basis. Under strict liability a defendant is not being made to pay damages because it has committed a moral wrong; rather, courts have determined that a manufacturer is in a better position than an injured plaintiff to obtain insurance against such injuries and distribute the price of that insurance among the public as a part of the cost of doing business. See Escola v. Coca Cola Bottling Co., 24 Cal.2d 453, 462, 150 P.2d 436, 441 (1944) (Justice Traynor's concurring opinion setting forth a basic rationale for strict liability in product cases).

Where plaintiff has already been reimbursed by a collateral source, there is less need for tort law to have a manufacturer absorb that cost. This is especially true in instances where the plaintiff would end up with a double recovery. In that connection, our study suggests that it is not easy for all manufacturers to distribute the cost of product liability insurance by raising the price of their product. This situation could grow worse in the future. Therefore, a modification of the collateral source rule that would eliminate double recoveries in strict liability cases would seem both theoretically and practically consistent with the "risk distribution" theory adverted to by Justice Traynor.

A second argument against modifying the collateral source rule states that a manufacturer should not be permitted to "externalize" the costs of an injury caused by its products. This argument appears especially cogent where the injured plaintiff has purchased health and accident coverage. In that instance, it has been argued that the defendant manufacturer should not be able to benefit from the plaintiff's prior prudence in purchasing such insurance.

Moreover, even if the collateral source is a public one (e.g., government welfare payments), an abolition of the collateral source rule would result in that resource absorbing the cost of an accident caused by a manufacturer of a product.

It is on the externalization of costs issue that a difficult judgment call must be made. The American Bar Association's Commission on Medical Professional Liability, in its Interim Report, appeared to conclude that the externalization of costs argument does not preclude abolition of the rule. The Report stated that, "One does not purchase accident insurance in the hope of a double recovery." See Interim Report at 56 (1976). On the other hand, a minority of insurers interviewed by our insurance contractor believed that a corporation responsible for a product-related injury should pay for it in its entirety. See Insurance Study at 4-98.

Another argument against abolishing the collateral source rule was made by the economist who served as a consultant for our Legal Study. He believes that a broad scale modification of the

collateral source rule might reduce the manufacturers' incentive to engage in risk prevention techniques. See Volume V, Legal Study at 150.

In light of all of these arguments, pro and con, the overall perspective of both our Legal and Insurance Studies was that proposed modifications of the collateral source rule deserve active consideration. If this matter is pursued, the most difficult issue arises in relation to the form of such modifications. Some of the main approaches are discussed below.

Proposed Solutions to the Problem

Abolish the Collateral Source Rule

As a practical matter it would be easiest to abolish the collateral source rule totally. A broad-scale elimination of the rule probably could only be undertaken in connection with the enactment of a product liability no-fault system. This would help preserve the constitutionality of such legislation because potential product victims would be given something "in return" for their giving up the benefits of the collateral source rule. See p. 205.

Nevertheless, even under a no-fault system, few would advocate a total abolition of the collateral source rule. Thus, automobile no-fault advocates suggest that the collateral source rule still applies with respect to income received by the victim through gifts, family obligations or life insurance proceeds. See R. Keeton and J. O'Connell, Basic Protection for the Traffic Victim, 400-01 (1965). Our Legal Study reviewed the extent of collateral source rule abolition in automobile no-fault statutes. It found that no state deducts an amount gratuitously received from friends or associates, or withdrawn from family assets. See Volume V, Legal Study at 145.

Modify the Collateral Source Rule

The broadest statutory abolition of the collateral source rule found by our Legal Study was the Iowa 1975 Medical Malpractice Act. This statute abolished the collateral source rule where plaintiff had already been indemnified by private

insurance or the government. See Iowa Code Ann. Sec. 147.136 (Amend. Act 1975, Ch. 239 Sec. 16, 6/30/75).

The Iowa statute is controversial because it includes private as well as public resources. In that connection, it has been pointed out to the Task Force that an individual's rights under private accident and health insurance may be limited to a certain number of claims per year or an aggregate amount. Legislation that abolished the collateral source rule where an individual had such insurance would need to take account of that problem. More importantly, where private insurance sources are included in the abolition, this penalizes individuals who are more prudent with respect to insurance programs.

Our Legal Study showed that Ohio, Tennessee, and Pennsylvania have enacted medical malpractice statutes that provide for a reduction of damage where the plaintiff has been reimbursed by a "public collateral source. . . ." This is assumed to mean all nonprivate, government-provided benefits. See Volume V, Legal Study at 146. A legislature taking this tack must consider its effect on existing legislation that authorizes subrogation by public collateral sources. Moreover, where subrogation rights exist, the legislature should realize that the effect of abolishing the collateral source rule is to have the tax-paying public bear a portion of the cost of product-related injuries.

Authorize the Introduction of Collateral Sources in Evidence

Two states, California and New York, have used another approach to modifying the collateral source rule in the context of medical malpractice. They permit the defendant to introduce in evidence the fact that the plaintiff had been indemnified, in whole or in part, by public and certain private collateral sources. The California statute has a provision that allows plaintiff to introduce rebuttal evidence showing the amount he paid or contributed to secure his right to any insurance benefits adverted to by defendant. See Volume V, Legal Study at 147.

This approach leaves the jury in the role of balancing the delicate policy elements that surround proposals calling for abolition of the collateral source rule. It was the conclusion of our Legal Study that while the approach had a surface appeal,

it placed too great a burden on the jury. Also, it would reduce the potential benefit of collateral source rule modifications in that it would increase transaction costs while lowering predictability and consistency in the allocation of collateral benefits. Therefore, our Legal Study suggested that if the collateral source rule is to be modified, the best approach is the statutorily mandated deduction method employed by the Iowa, Ohio, Pennsylvania, and Tennessee medical malpractice statutes. See Volume V, Legal Study at 148.

Summary and Conclusions

Proposals to modify the collateral source rule might well affect all of tort law, and at least one court has held that a selected modification (medical malpractice) arbitrarily deprives a malpractice victim of equal protection of the law. See Graley v. Satayatham, 74 Ohio Op.2d 316, 343 N.E.2d 832, 836 (Ohio C.P. 1976). Nevertheless, the area of strict product liability law is one in which a selective abolition of the collateral source rule might well be justified. In that connection, where strict product liability law is based on principles of "risk distribution" or an "enterprise theory of liability," it is arguably unsound to provide plaintiff with a recovery where he has already been compensated.

It is easier to recommend a partial abolition of the collateral source rule than it is to show the precise scope of that abolition. In that regard, at least two important areas must be considered. Should the abolition include only situations where the plaintiff recovers twice, or should it also encompass situations where the collateral source itself has a right to be subrogated to plaintiff's claim? Second, should private as well as public collateral sources be included? Our discussion herein and our Legal and Insurance Studies provide further insight with respect to these issues.

RESTRICTIONS ON AWARDING PUNITIVE DAMAGES

Introduction to the Problem

According to our Legal Study, most states permit a jury to award a plaintiff "punitive damages" if he shows that his injury

stemmed from the fact that the defendant engaged in intentional or reckless disregard of plaintiff's rights. Punitive damages may be awarded against product manufacturers only when they are shown to have been reckless. There can be no such award when the defendant has only been shown to be responsible under a strict liability or negligence theory. See Volume V, Legal Study at 115-116.

For many years a number of tort law critics have called for abolition of punitive damages on the ground that they serve no proper "tort law" purpose. The purpose behind punitive damages is to admonish a wrongdoer and to deter him and others similarly situated from engaging in such conduct in the future. It should be stressed that in most states punitive damages are awarded in addition to plaintiff's compensatory damages. The arguments against awarding punitive damages are well detailed in the Defense Research Institute's monograph, The Case Against Punitive Damages, (August 1969).

Defenders of punitive damages contend that the criminal law often fails to impose sanctions against minor wrongdoers in our society and that punitive damage awards help alleviate that situation. Also, it is alleged that punitive damages help bring acts of serious wrongdoing to light.

It should be noted that a number of states forbid liability insurance companies to provide coverage for punitive damages. The reason underlying these rules is to make it certain that the defendant will truly feel the "sting" of a monetary punishment. Recently, the Insurance Services Office used the same rationale to exclude punitive damages coverage from liability policies.

We have not undertaken the task of making a general evaluation as to whether punitive damages should be awarded in all tort cases. Rather, we will focus here on the special problems that punitive damages may create in the area of product liability.

First, punitive damages may create a special problem in product liability because the field is particularly susceptible to claims in which a single actionable wrong can be the basis for a multiplicity of lawsuits. See discussion of Judge Friendly in

Roginsky v. Richardson-Merrill, Inc., 378 F.2d 832 (2d Cir. 1967). In that regard, it should be noted that punitive damages are usually imposed where one defendant committed one tortious act or injured one or two persons (e.g., reckless driving); in contrast, a manufacturer who recklessly produced a defective product is engaged in a continuous series of tortious acts that have the potential of injuring thousands of persons. Thus, the manufacturer potentially can be subject to punitive damages again and again and may be exposed to financial punishment that is far beyond what would occur under criminal law. Nevertheless, because the damages are awarded in a tort action, he will not be entitled to certain rights (such as the right to have proof rendered beyond a reasonable doubt) that are available under the criminal law.

A second problem focuses on who is hit by a punitive damage award in the context of product liability cases. Where a corporation is the defendant, either the organization's shareholders or the public (in terms of the ability of the corporation to pass on the cost of the award in the price of its goods) may ultimately bear the cost of the award. This may be of particular concern in the area of pharmaceuticals. These problems have not persuaded courts to decline to award punitive damages in product liability cases. See Annot. 29 A.L.R. 3d.1021 (1970).

In spite of the potential impact of punitive damages, several underwriters informed our insurance contractor that, "although they have no data on hand on this specific question, they feel there have been relatively few cases with punitive damage awards." See Insurance Study at 4-99. This appears to be borne out by our Legal Study which found only three recently reported cases that have upheld punitive damage awards in product liability. See Volume V, Legal Study at 119. A companion study determined that only six punitive damages awards were reported in 1975, and one of these was reversed on appeal.(Id.) Also, when ISO recently called for the exclusion of punitive damages from liability policies, its spokesman said that, "The overall amount of punitive damages has not been sufficiently significant to warrant rate adjustments as a result. . ." ISO Press Release (8/17/77).

Nevertheless, a member of the Under Secretary of Commerce's Advisory Committee indicated that although the effect of punitive damages on insurance rates has been minimal, "it will become an increasingly major factor in the future." Transcript Advisory Committee, (3rd Jan. 11, 1977), remarks by Mr. Thomas York, president, AMF, pp. 27-28. Also, an experienced plaintiff's attorney noted at the First World Product Liability Congress that the imposition of punitive damages in product liability cases would substantially increase in importance in the not too distant future. See remarks of M. Belli, First World Congress on Product Liability at p. 173 (1977) ("Punitive damages should scare the hell out of you").

Proposed Solutions to the Problem

A Method to Reduce the Impact of the Multiple Punitive Damage Award

While substantial arguments can be made that punitive damages should be eliminated in product liability cases, it should be remembered that they only may be awarded where defendant is shown to have engaged in reckless conduct. Therefore, it has been forcefully argued that they are needed to help ensure that consumers are not adversely affected by such conduct on the part of the manufacturers. See Owen, "Punitive Damages in Products Liability Litigation," 74 Mich. L. Rev. 1258 (1976) (one of the most extensive scholarly studies on the subject).

Nevertheless, the Task Force (through a series of Working Papers and consideration by its legal contractors) attempted to determine whether some of the excesses in regard to punitive damages could be curbed. One potential solution that evolved focused on the multiplicity of lawsuits problem. In that connection, it has been suggested that it might be of assistance to vest in the judge, rather than in the jury, the responsibility for determining the amount of punitive damage awards. The jury would retain its fact-finding role in terms of deciding whether the plaintiff was entitled to punitive damages (e.g., did the defendant engage in reckless or intentional wrongdoing?). Since the judge is trained to engage in sentencing and can compare previous cases with the one before him, he may be better able than the jury to determine the amount of punitive damages.

Moreover, he could easily consider the fact that the defendant had already paid punitive damages in other actions with respect to the same product. If this evidence were brought before a jury, it might prejudice the group's initial determination as to whether the defendant was liable for compensatory damages.

This procedural change would obviate the need for a separate trial on the issue of punitive damages which would otherwise be required if the jury were permitted to consider the amount of such damages paid by the defendant in prior suits. This proposal is further developed in our Legal Study. See Volume V at 125-126.

Our Legal Study also suggested that punitive damages should only be awarded where the corporate management has either authorized, participated in, consented to, or ratified conduct that shows a conscious or reckless disregard for public safety. See Volume V, Legal Study at 123. This rule would shield a corporation from punitive damages based on conduct of junior employees. The problem with the rule is that it might make it almost impossible to prove that a corporation was in fact reckless. Further, it could foster legal disputes as to whether an individual stood "high enough" in the corporation to cause it to bear responsibility for punitive damages. In any case, so long as the officials themselves do not have to pay for the punitive damages, either an insurer, a shareholder or (ultimately) a consumer bears the cost.

Should Punitive Damages be Paid to a Source Other than Plaintiff?

The Task Force received a number of suggestions that punitive damages, if allowed, should be paid to a source other than plaintiff. It has been suggested that the award should go to a state fund to be used for product liability loss control efforts. We also received a suggestion that the damages be placed in a fund for product liability victims who are unable to obtain a recovery because of a defendant as judgment proof. Finally, it has been suggested that punitive damages be used to help avoid deficits in state-run product liability reinsurance facilities.

All of these suggestions are predicated on the assumption that punitive damages are a "windfall" to plaintiff. In that

connection, our Legal Study has indicated that punitive damages may play a residual role in the compensatory system in that they may reimburse the plaintiff for losses which he could not otherwise recover, e.g., litigation expenses. See Volume V, Legal Study at 127. More importantly, our Legal Study questions whether plaintiffs (and their attorneys) would be willing to press claims for punitive damages if they did not reap benefits.

A final problem with these suggestions is that if the state were to take a more active role (e.g., by joining in the lawsuit) in seeking punitive damages, this might transform a civil case into a criminal one. This is a point that was not explored by our Legal Study but is deserving of consideration if such an option were pursued by a legislature.

Summary and Conclusions

We have found no data that show that the imposition of punitive damages in product liability cases has been a substantial cause of the rise of liability insurance rates. In point of fact, in a number of jurisdictions a manufacturer cannot under law, insure against punitive damages. Nevertheless, a potential problem lurks in this area. A single actionable wrong by a corporation can be the basis for a multiplicity of lawsuits with a multiple imposition of punitive damages. This can impose a cost on the manufacturer far in excess of anything that might be imposed under the criminal law. One method whereby this potential excess could be curbed is to have the judge, rather than jury, determine the amount of punitive damages. In making this determination the judge could consider, among other factors, the amount of punitive damages the defendant had already paid.

REPLACING LUMP SUM DAMAGES WITH A PERIODIC PAYMENT SYSTEM

Introduction to the Problem

Under the common law in most states, a plaintiff who has suffered a permanent injury may obtain damages for loss of his future earning capacity and also for future medical expenses. This payment is made in the form of a lump sum award.

It has been brought to the attention of the Task Force that there are a number of factors that cause gross inefficiencies in a lump sum payment system. First, the jury is left to speculate as to whether the plaintiff will be able to recover and do productive work. It also must speculate about the extent of plaintiff's future medical costs.

Secondly, in most jurisdictions, the jury is instructed to reduce its estimate of plaintiff's "future" damages to their "present value." The jurors attempt to do this with the assistance of annuity charts and sometimes with the aid of expert testimony. In more recent years some courts have held that juries should not reduce lump sum awards to present value without considering the countervailing pressure of inflation.

Third, although the awards are not subject to federal income tax, the jury is not informed of that fact and this may lead to an inaccurate estimate of future damages.

Finally, the system leads to personal difficulties on the part of many injured persons. In that connection, many plaintiffs have not had substantial amounts of money in their possession during their lifetime. They may be ill-equipped to determine how a \$300,000 award can be most effectively used in terms of their own future needs.

Some of these reasons prompted Professor John W. Wade, Reporter of the Restatement of Torts (Second), to suggest to the Task Force that it should consider recommending the establishment of a damage award system where payments were made in installments, rather than in a lump sum form. See Working Task Force Symposium at 17-18. Ideally, this system would avoid the problems adverted to above.

Proposed Solutions to the Problem

Replace Lump Sum Payment Awards With a Periodic Payment System

According to our Insurance Study, many insurers favor the concept of a periodic payment system for future damages, but they suggest that it would have little immediate impact on product liability insurance rates. Several underwriters believe that

over the long term it might have a favorable impact on insurance costs, but it would be several years before the results would show up in insurance statistics. See Insurance Study at 4-99.

At least one manufacturer has suggested that if insurance companies were allowed to purchase annuities to discharge their responsibility for product liability judgments, this might mean a substantial saving in insurance costs. See Business Insurance, p. 32 (11/1/76). Nevertheless, neither our contractors nor other sources have provided specific indications of how much insurance cost reduction would flow from a periodic payment system. The problems connected with that system are examined in the next section.

How a Periodic Payment System Might Function

The American Bar Association Commission on Medical Professional Liability in its Interim Report to the ABA House of Delegates recommended that "legislation should be enacted in all States to permit the payment of future damages in periodic installments." See Interim Report at 40 (1976). Although that recommendation has the potential of solving some of the problems connected with a lump sum payment system, a legislature would encounter difficulties when it faced the practical issue of formulating the details of such a system.

In that regard, neither our legal nor our insurance contractor could give us a firm answer as to whether the economic efficiency wrought by a periodic payment system would be cancelled out by the administrative costs connected with that approach. A Working Task Force member from the Federal Insurance Administration indicated that a periodic payment system could only be utilized in connection with a no-fault system. It was his judgment that the transaction costs connected with such a system would be intolerable if it were implemented within the context of the tort-litigation system. We have made no finding on that issue.

Further, Attorney (now Judge) Richard Markus observed at the Task Force Symposium that the use of installment periodic payments would not entirely remove the element of speculation from a damage award. The jury would still have to make rough

estimates about the plaintiff's future when it determined the amount of the basic fund. See Working Task Force Symposium at 74. Thus our study suggests that it may be necessary to make substantial changes in how the common law damage system works if a periodic payment system is to be made efficient and effective. A basic change that would almost have to be made is to require the jury to itemize its awards for past and future loss of earnings, medical costs, and pain and suffering. The court might then establish a periodic payment system from the fund created by the jury.

On the other hand, the jury might be asked to set an award for a specific amount per month (for loss of wages and medical costs) "unless otherwise modified." The system might have to include a procedure for modifications of an award because increases or decreases might be necessary in the future. Obviously, the administrative costs connected with verdict modifications could be substantial. Our Legal Study developed an analogy to Worker Compensation systems and shows some of the problems that have evolved in that area of the law. See Volume IV, Legal Study at 161-169. That study suggests that if periodic payment systems were to be used within the context of the tort-litigation system, modification of awards should not be permitted.

It might be more feasible to utilize a periodic payment system if an arbitration panel determined the facts and made the award. The expertise on the panel and the flexibility inherent in the system would help ensure this result. See our discussion of arbitration at p. VI-202.

Our Insurance Study suggests that if a periodic payment system is used, it should not be mandatory. There may be some situations where a lump sum would be useful (e.g., where capital was needed for the injured person to go into a new business). See Insurance Study at 4-99. It has also been suggested to the Task Force that a periodic payment system may only be appropriate when the total damage award reaches a certain minimum level, e.g. \$100,000.00.

Finally, with the growing number of companies that are self-insuring, periodic payment legislation should not "assume" that

such payments would always be made by insurance companies. Provision would have to be made for a trust fund in such instances.

Summary and Conclusions

While serious problems have arisen because of the wide degree of speculation intrinsically connected with the lump sum method of product liability verdicts, implementing a periodic payment system within the context of the tort-litigation system presents difficult technical and policy determinations.

Nevertheless, the advantages of the system make it worth considering in connection with a development of a uniform product liability law.¹ We are unable to make a determination as to whether the potential savings connected with a periodic payment system would be cancelled out by administrative costs connected with monitoring or modifying the basic fund. In light of the complications connected with a periodic payment system, it seems best that the reform be considered in connection with a broad-scale tort reform, such as arbitration or a no-fault comprehensive system.

NOTES TO PROPOSED MODIFICATIONS OF SOME BASIC PRODUCT LIABILITY LAW RULES THAT RELATE TO DAMAGES

¹It has been brought to the attention of the Task Force that a sub-committee of The National Conference of Commissioners on Uniform State Laws is currently developing model legislation for a periodic payment system. Legislators who are interested in pursuing the subject are advised to contact the Conference in order to determine the current status of the committee's work.

Part IV

Proposed Modifications of Product
Liability Rules Relating to a Defendant's
Right Against Third Parties—
The Problem of the Workplace Injury

PROPOSED MODIFICATIONS OF PRODUCT LIABILITY RULES
RELATING TO A DEFENDANT'S RIGHT AGAINST THIRD PARTIES--THE
PROBLEM OF THE WORKPLACE INJURY

AN INTRODUCTION TO THE GENERAL PROBLEM

Among the groups hit hardest by the rise in product liability insurance premiums are some manufacturers of heavy industrial machinery. See Chapter III at 18-44. Insurers justify these rate increases on the basis of product liability claims brought by employees who are injured in the workplace. In many instances, these employees have already collected Worker Compensation, but they are tempted to seek the greater damages that might be available under the tort system. As members of the Under Secretary of Commerce's Advisory Committee have pointed out to the Task Force, the workers have really nothing to lose: they have already collected once and they may be able to collect more. They spend no money for an attorney since they obtain counsel on a contingent fee basis. While we were interested in learning whether a rise in Worker Compensation benefits might abate

these suits, we were not able to obtain any proof that this would be true. See Insurance Study at 4-67; Transcript, Advisory Committee on Product Liability, Third Meeting p. 33 (1/11/77).

When workers bring their tort claims they are often joined in that suit by their Worker Compensation carrier. That carrier brings a subrogation action for the amount it already paid the injured worker. There has been much speculation as to whether the employee or the Worker Compensation carrier instigates these suits. In that regard, preliminary data from the ISO Survey suggest that in the more serious cases the claim would have been brought whether or not the Worker Compensation carrier used subrogation. ISO Survey, Detailed Analysis p. 43 (12/76).

Preliminary ISO data also indicate that while workers' product liability claims represent only 11 percent of the product liability incidents, these tend to be larger claims accounting for almost 50 percent of the total insurance "payouts." See ISO Survey, Detailed Analysis p. 40-43 (12/76).

Most of the "remedies" brought to the attention of the Task Force in regard to workplace injuries involve potential shifting of costs between manufacturer and employer. In that regard, it should be noted that in most states today the entire cost of a workplace product-related injury may be borne by the manufacturer of that product. This occurs in the following way. First, a worker is injured by a machine in the workplace. He then collects Worker Compensation. This amount usually does not represent a full reimbursement in regard to his injuries. In most states compensation for both temporary and permanent disability is substantially below the National Commission on Workers' Compensation's recommendations of $66 \frac{2}{3}$ of income up to a hundred percent of the state's average weekly wage plus medical and rehabilitation costs. See "Workers' Compensation: Is There a Better Way?" - Report to the President and the Congress of the Policy Group of the Interdepartmental Workers' Compensation Task Force p. 14 (1/19/77). This is also true in cases involving a work-related death.

The worker (or his representative in death cases) can obtain 100 percent of his pecuniary losses if he is successful in a tort suit against the manufacturer of the machine that injured him. In addition, he can obtain damages for pain and suffering.¹ These may represent two or three times the amount of actual losses. The worker cannot obtain this type of recovery from his employer however negligent he may have been with respect to the accident. This is true because the employer was granted an immunity from such suits under Worker Compensation laws.

The manufacturer of the machine in question is also unable in most states to place all or part of the cost of the employee's suit onto the employer. The reason for this result is that a contribution claim does not lie against the party (here the employer) who was never liable under tort law to the injured party (here the employee). See 2A Larson, The Law of Workmen's Compensation Sec. 76 (1976). Moreover, even where the employer was negligent, the Worker Compensation carrier in a number of states may be able to bring a successful subrogation action against the manufacturer of a defective product. That claim will be neither reduced nor barred because the employer's negligence contributed to the accident. See Volume VI, Legal Study at p. 50.

Again, most of the potential "solutions" to product liability insurance problems arising from the workplace claim have involved cost shifting from manufacturers to employers. We will discuss three of those solutions in this section: modifications in rules relating to contribution and indemnity, prohibiting or modifying subrogation rights in Worker Compensation claims, and hold harmless clauses.

A fourth approach seeks to reduce overall insurance costs connected with the product-related workplace injury. This remedy would abolish the worker's right to bring a third-party claim against manufacturers and would make Worker Compensation the sole source of recovery for his product-related injury. This approach represents more than a modification of the tort-litigation system: it in effect creates a no-fault compensatory system for all product-related workplace injuries. Nevertheless, we have chosen to discuss that remedy along with those that merely modify the tort-litigation system in order that the reader can more easily compare all of the basic remedies that focus on product-related workplace injuries. The reader is advised that it may be helpful to read the report's full section on no-fault in order to obtain a fuller understanding of both Worker Compensation and remedies that modify it. See Part VI, infra.

PROPOSED SOLUTIONS TO THE PROBLEM

Contribution and Indemnity Claims--In General

There are many situations where more than one party may be responsible for a product-related injury. It might be expected that there is some legal mechanism whereby the cost of that injury could be allocated among those parties in accordance with their responsibility for the product-related accident.

Unfortunately, this is not always the case. The common law shied away from apportioning damages and developed a doctrine that one "wrongdoer" could not recover against another. The formal language of that doctrine was that there could be "no contribution among joint tortfeasors." This common law rule has been changed in a majority of jurisdictions. Where it remains in force, a manufacturer of a defective component of a product might

have to bear the entire cost of an accident where the assembler and final manufacturer were also responsible.

The manufacturer of the defective component might attempt a claim in implied indemnity against the manufacturer, but unless he can show that his own responsibility was both minor and passive and that the manufacturer's fault was both major and active, he is unlikely to be successful. Where a component part manufacturer is able to bring a successful indemnity claim, he can shift the entire cost of the accident onto the manufacturer.

It would seem that the "no-contribution among tortfeasors" rule coupled with the "all or nothing" approach connected with the law of implied indemnity compromises the Task Force's goal of placing the incentive for risk prevention on the parties who are best able to accomplish that goal. That goal would be more likely to be achieved if contribution claims were allowed among all parties in the manufacturing chain. The trier of fact would apportion damages based upon the conduct of each party. We have no evidence that this approach would increase the availability of "affordable" product liability insurance for distributors, manufacturers or others. We can only hypothesize that over time it might result in a more equitable allocation of premiums by insurers. The validity of this hypothesis is based on the supposition that there will be a substantial improvement in the method insurers use in the rate-making process. See Chapter V at p. 25-30.

Permitting contribution actions among parties in the chain of manufacturing and distribution of products may compromise the goal of expediting the reparations process and might also increase transaction costs. Nevertheless, in the absence of other complications, the principle of contribution among defendants based on the relative responsibility of each appears to be a useful one in product liability law.

Contribution and Indemnity as Applied to Injuries in the Workplace

As should be clear from our discussion in Ch. II, p. 27, even where the law permits contribution among joint tortfeasors,

product manufacturers are unable to shift the cost of an employee work-related accident onto the employer-user of the product. This is true because the employer is immune from suit by his employee under Worker Compensation law: technically, the employer is never a joint tortfeasor.

In most states the only way the manufacturer can shift the cost of the accident onto a negligent employer is by way of action for "implied indemnity." States that allow such a claim base it on an assumption that the employer's negligent conduct violated an independent duty to the manufacturer. See Gale Harn v. Standard Engineering Co., Civ. No. 3-3051, 1976 Product Safety and Liability Reporter 586 (7/26/76); American District Telegraph Co. v. Kittleson, 179 F.2d 946 (8th Cir. 1950). According to our Legal Study, even where the remedy of implied indemnity has been allowed, it has been of little use because courts often find that the placing of a "defective" product in the stream of commerce is sufficient misconduct to bar the claim. See Volume VI, Legal Study at p. 5. It is in this legal framework that a number of manufacturers of capital goods suggested to the Task Force that it recommend permitting manufacturers to bring actions for contribution against employers when an employer's negligence has contributed to the product-related injury. The case of Dole v. Dow Chemical Co., 30 N.Y.2d 143, 282 N.E.2d 288, 331 N.Y.S.2d 382, (1972) and the New York statute based on that case, N.Y.C.P.L.R. Sec. 1402 (McKinney's Supp. 1976), have been submitted as models for formulating legislation in the area.

Allow full contribution by a manufacturer based on the comparative responsibility of manufacturers and employers in regard to a product work-related accident

The most important argument in favor of allowing a full contribution claim by manufacturers against employers in regard to product-related workplace accidents is that it would put a strong incentive for risk prevention on the employer. In that connection, preliminary data submitted to ISO suggest that the number of product liability cases caused, in part, by employer negligence is not insubstantial. Insurance company file reviewers who submitted data to ISO indicated that but for the

"sole source remedy" rule, employers would have been impleaded in two thirds of the cases involving product-related workplace accidents. See ISO Survey, Detailed Analysis p. 41 (12/76). A report based on a two-year study by the Interdepartmental Workers' Compensation Task Force appears to bear this out: to the extent that the costs of accidents are not internalized in the cost of production, employers will under-invest in safety and health. The report indicates that internalizing costs should be one of the best ways of encouraging prevention. See "Workers' Compensation: Is There a Better Way?", p. 48, cited p. 86 supra. While the report made no specific data finding on the issue, it suggested that in many cases Worker Compensation has been an insufficient incentive for worker safety in part because benefits are too low and in part because there is insufficient experience rating.

Moreover, manufacturers can point to cases where they have been denied any right of contribution although their products have been modified and poorly maintained by employers. See Skinner v. Reed-Prentiss Division Package Machinery Co., CCH Prod. Liab. Rptr. #7742 (Ill. App. Ct. 1976).

Allowing a contribution claim in these cases may be fair to both injured workers and manufacturers. See our discussion of the misuse defense at p. 47.

Our Insurance Study observed that some underwriters believe that contribution could alleviate an acute unavailability problem if that situation confronted machinery manufacturers. See Insurance Study at 4-101. On the other hand, according to our Insurance Study, few insurers believe that permitting manufacturers a contribution claim would improve affordability or availability problems in the overall insurance market. Id. Our Insurance Study points out that allowing contribution only shifts costs among insurers; it does not reduce overall losses.

A strong argument can be made against this supposition: if allowing a contribution claim would measurably increase employer practices with regard to product safety, insurance costs should ultimately be reduced. Unfortunately, the Task Force was unable to make a finding on this issue. Our Legal Study attempted to explore the situation in New York since the Dole decision allowing contribution, but it could not find any economic impact

rates. See Volume VI, Legal Study at p. 25 ("There is no evidence as to the success or failure of this approach concerning Worker Compensation, or even product liability as a whole.").

It also has been argued that allowing a contribution claim would erode the original "bargain" struck between employer and employee under Worker Compensation. See statement submitted to Task Force by the Alliance of Metalworking Industry at p. 5 (7/27/76). Under that "bargain", employers granted employees a limited no-fault recovery for injuries that arose in the workplace in return for a shield from tort actions. Allowing manufacturers the right to bring contribution claims results in an "end-run" around that tort shield. On the other hand, product manufacturers argue that they were not a part of that bargain and, therefore, should not be barred from bringing contribution claims. See in strong support of this view Larson, "Workmen's Compensation: Third Party's Action Over Against Employer," 65 NW. U.L. Rev. 351, 420. ("It is unfair . . . to pull the third party within the principle of mutual sacrifice when his part is to be all sacrifice and no corresponding gain.")

Employers who oppose this remedy also contend that allowing contribution could increase transaction costs in that the product manufacturer's third-party claim would delay and complicate trials and would also place additional legal costs on employers. Our Legal Study suggests that the delay and complications might be mitigated if the contribution claim were tried in the principal case under a comparative fault system. The jury would be in the process of apportioning fault among parties anyway, and the contribution claim might not add that substantially to their burden. See Volume VI, Legal Study at p. 25. Again, we have no data to support this supposition. Assuming it is valid, the employer's defense costs would remain.

On the issue of defense costs, our Legal Study speculated that allowing contribution claims might prompt settlements by product manufacturers because they would no longer have to bear the total cost of a workplace product-related injury. Again, this is a matter of speculation; we have no data on the point.

Allow Manufacturers Limited Contribution Claims up to the Amount of the Employers' Worker Compensation Payment

A "compromise" remedy approach discussed at length in our Legal Study and also mentioned in our Insurance Study suggests that manufacturers be given a right of contribution up to the amount the employer paid under Worker Compensation. Under this proposal, an employer would only have to pay the amount he would be responsible for in the absence of a product liability claim, and there would be no erosion of the so-called "bargain" in regard to the employer's participation in a Worker Compensation system. As our Insurance Study notes, the result of this change would be similar to that of permitting manufacturers to raise an employer's negligence as a defense to Worker Compensation subrogation cases. See Insurance Study at 4-102. The difference is that the manufacturer could bring a contribution claim even in the absence of subrogation, and this remedy would allow action brought by the employer. The equities discussed in the prior section preponderate strongly in favor of this remedy. See Lambertson v. Cincinnati Corp., Prod. Liab. Rptr. #7847 (Sup. Ct. Minn. 1977).

Preliminary ISO data reflect that a substantial portion of the \$50,000-plus product liability claims (which would include those arising from the workplace) may stem from general damages for pain and suffering. Also, it should be recalled that Worker Compensation only provides a percentage of workers' out-of-pocket costs. Thus, the effect of this modified contribution right could be quite limited. We do not have sufficient data to indicate the extent of that limitation, but a study of the final results of the ISO Closed Claim Survey might help clarify the point.

If Legislation is Enacted Allowing Manufacturers Contribution Claims, the Matter of Employer Coverages For Such Claims Should Be Considered

Howard Clark of the Federal Insurance Administration and a member of the Working Task Force group pointed out to the Task Force that if manufacturers are granted a right of contribution against employers in the case of product-related workplace injuries, careful consideration should be given to how employers

will be covered by this "new" liability. Mr. Clark suggested that the employer's comprehensive general liability policy or other liability coverage may not shield him from liability for claims arising out of an injury sustained by an employee. It was Mr. Clark's belief that coverage will exist only under the employer liability section of the Worker Compensation policy. He suggested that a study of the situation would show that many employers do not have this coverage, and those that have it may only be protected by rather modest limits. See Memorandum of H. Clark to the Interagency Task Force dated November 29, 1976. If a legislature were to undertake a modification of current rules on contribution, it should give attention to this problem.

Worker Compensation Insurance--Experience-Rated

Aside from achieving general equity between manufacturers and employers, a contribution remedy is alleged to increase incentives on employers for risk prevention. It would appear that this result can only be obtained if Worker Compensation insurance covers this additional cost and that insurance is experience-rated. The Report of the Interdepartmental Workers' Compensation Task Force provides more information in regard to experience rating in workers compensation cases. See "Workers' Compensation: Is There A Better Way?" cited p. 69 supra.

A Federal Law Allowing Contribution By a Manufacturer Against a Negligent Employer

The importance and potential economic impact of proposals that would permit product manufacturers third-party claims against negligent employers is perhaps underscored by the fact that legislation attempting to achieve that goal was introduced at the Federal level over one year ago. The legislation took the form of a proposed amendment to the Occupational Safety and Health Act of 1970, and its purpose was "to further encourage industrial safety. . . ." See S. 3317, 94th Cong. 2d Sess. (4-14-76) and the companion bill H.R. 13624, 94th Cong. 2d Sess. (5-6-76).

S. 3317 was alleged to induce greater compliance with the requirements of OSHA since the economic risk of non-compliance might be far greater under the proposal than under OSHA itself.

It addressed itself to cases "where an employer's failure to comply with any provision of (OSHA) or any standard promulgated thereunder" caused or contributed to an accident that resulted in bodily injury. The act went beyond OSHA and included claims based on injuries resulting from an employer's failure "to comply with any State statutory, administrative or common law requirement relating to industrial safety. . . .," 122 Cong. Rec. 55732 (daily ed. April 14, 1976).

If the act were effective in accomplishing its goal, it might have a substantial effect in shifting insurance costs from manufacturers onto employers. Its national, uniform application might have an effect on underwriters who formulate product liability and Worker Compensation insurance rates.

Nevertheless, our Legal Study suggested that S.3317 might fall short of its goal for two reasons. First, the act only prohibits states from using their Worker Compensation laws "to bar an action or third-party complaint for contribution or indemnification. . . ." Thus, the act might not prevent a state from continuing to refuse to allow contribution actions if that result were reached by means other than a statutory construction of a Worker Compensation law or similar State statute. See Volume VI, Legal Study at p. 20-21. Our Legal Study suggests that one possible approach would be to create a Federal cause of action for contribution on behalf of manufacturers when they are sued in a product-related injury and that injury was brought about, in part, by the negligence of the employer.

Second, the act was imprecise with respect to the scope of the claim when it was allowed. The act simply speaks to claims for "contribution or indemnity." Carefully constructed legislation would indicate the means of damage apportionment between the manufacturer and employer and would also address itself to the issue of whether the employer's responsibility would be limited to its total liability under the Worker Compensation law. For a fuller explanation of these problems, see Volume VI, Legal Study at p. 20-22.

Our Legal Study also discusses the Senate Labor Subcommittee's proposed amendment to Section 9 of S. 2018, the Federal Workers' Compensation Act. Under that proposal the

manufacturer could seek contribution or indemnity from an employer, but that recovery would be limited to the maximum amounts available under the Longshoremen's and Harbor Workers' Compensation Act. For a full discussion of this proposal, see Volume VI, Legal Study at 23.

Summary and Conclusions

One of the more important remedial proposals to reduce product liability premium costs on the part of manufacturers of industrial equipment is to allow such manufacturers a contribution claim against negligent employers where their negligence contributed to an employee's work-related accident. While this proposal may be viewed as simply shifting insurance costs from industrial machinery manufacturers onto employers, it might reduce overall insurance costs if it acted as an effective deterrent in regard to workplace injuries. The threat of third-party claims might cause employers to shy away from engaging in dangerous modifications of industrial machinery or using such machinery when it was in a state of disrepair. The Task Force has not been able to obtain data as to whether the proposed modification would have this effect. If it did have this effect, the greatest shortcoming of the remedy, i.e., an increase in legal and transaction costs, might not occur. This is true because there would be fewer product liability workplace accidents. Preliminary data do suggest that a substantial number of product liability workplace accidents are caused, in part, by an employer's negligence.

Proposals calling for a modification of contribution rules have already been suggested at the Federal level. Aside from their potential impact on OSHA, this is an area where uniformity of law is more likely to bring about a substantial impact in either reducing or shifting product liability insurance costs.

Prohibition or Modification of Subrogation by Worker Compensation Carriers

Introduction to the Problem

Subrogation is the right of a party who has paid the losses of an injured person to sue or otherwise be reimbursed by a third

party who is responsible under tort law for the injury in question. In the field of product liability when an employer has paid Worker Compensation benefits to an employee injured by a defective product, that employer, in the overwhelming majority of states, will be subrogated to the employee's rights against the product manufacturer. See Volume VI, Legal Study at pp. 48-49 (showing six basic categories into which subrogation statutes of nearly all of the fifty states can be placed).

It has been represented to the Task Force that subrogation rights may prompt employers to generate product liability claims that would not otherwise be brought. We have not been able to develop data to support this allegation. Existing legal rules do not suggest that it is the employer per se who prompts these claims. In that regard, according to our Legal Study, most states allow the employee a priority or at least a co-existent right to bring a third-party claim. Only two states give the employer-subrogee the first opportunity to bring the third-party suit. Even in those states, if the employer fails to take such action, the employee then becomes entitled to bring a claim. See Volume VI, Legal Study at p. 48-49.

More importantly, in a number of situations Worker Compensation premiums (especially for smaller firms) are not experience-rated, and the employer might not be able to obtain lower premiums because of subrogation. See "Workers' Compensation: Is There A Better Way?" p. 48, cited p. 86 supra. This would diminish employer incentive for bringing a claim.

It should also be noted that in a recent survey by the Alliance of American Insurers closed during 1975 with total payments exceeding \$100,000 (a total of 79 claims in the 8-company survey), it was found that subrogation was responsible for the filing of only 3 percent of the claims, and partially responsible for the filing of an additional 8 percent. Also preliminary data obtained by the research firm of Teknekron, Inc., on behalf of the Department of Commerce and the Interdepartmental Task Force on Workers' Compensation showed that for the three-year period from 1971 to 1973, the value of subrogation (including those based on product liability cases)

represented only 2 to 3 percent of all Worker Compensation loss payouts. See Industry Report at VI-11.

While a number of the trade association surveys summarized in Chapter III suggest that the subrogation problem may be more substantial, we do not know whether those claims were initiated by workers themselves or were indirectly fostered by Worker Compensation carriers or by employers. Thus, we are unable to prove that subrogation rights are of special importance in generating product liability suits.

This does not mean that we found no problem with respect to existing rules relating to the right of subrogation. In that connection, in many states employers (or Worker Compensation carriers) can recover the full amount paid to an employee in spite of the fact that the employer's negligence contributed to the occurrence of the accident. See Schweizer v. Elox Division of Colt Indus., 133 N.J. Super. 297, 336 A.2d 73 (1975).

A rule of this type allows an employer to externalize totally the cost of an accident that was due, in part, to its own negligence.

The reasons underlying this rule are uncertain, but legislatures and courts may have taken this position as part of the exchange for employers agreeing to broad liability exposure under Worker Compensation laws. See Williams Bros. Lumber Co. v. Meisel, 85 Ga. App. 72, 75, 68 S.E. 2d 384, 388 (1951). Also, the rule may have been prompted by the desire of some courts to avoid complicating a trial by introducing the need for a jury to apportion fault between the employer and the manufacturer. It would appear that the full subrogation rule compromises the Task Force goal of placing the incentive of risk prevention on the party who is best able to fulfill that responsibility.

Proposed Solutions to the Problem

Abolish the right of subrogation

Aside from the suggestion that the right of subrogation may breed product liability suits, it has been contended that that right is inconsistent with the proposition that Worker

Compensation systems should bear all costs of accidents arising out of the course of employment. However, our Legal Study found nothing in the history of Worker Compensation laws that suggests that the systems should bear the cost of injuries to workers that are caused by responsible outside forces. See Volume VI, Legal Study at p. 50-51. Therefore, if an employee while in the course of employment is struck by a negligently driven automobile, it has been assumed that the employer has a right to impose Worker Compensation costs on the negligent driver of that automobile.

It has been contended that a subrogation right is less justified where the outside force causing the accident was not shown to be negligent, but only strictly liable. In that connection, it should be recalled that some courts impose strict liability on product manufacturers because they are ordinarily the "risk distributor" of the cost of the injury involved, not because they are at fault. Thus, it has been suggested that a Worker Compensation carrier is a better "risk distributor" than a product manufacturer with respect to accidents that arise out of the workplace.

There is some force to this argument, and it might reduce transaction costs if subrogation were abolished whenever the outside defendant could only be shown to be liable under a strict liability theory. In the past, the State of Illinois had rules of law that brought about this result, but our Legal Study suggests that the experience in Illinois demonstrated that making subrogation rights depend on a distinction between negligence and strict liability was unworkable. See Volume VI, Legal Study at p. 56.

Modify the right of subrogation

As has been indicated, the rule allowing an employer or Worker Compensation carrier a full recovery in subrogation cases when the employer's negligence has contributed to the employee's injury is difficult to justify in light of the need to create incentives for risk prevention. The rule has even been criticized by a court that was legislatively compelled to follow it. See Ruvolo v. United States Steel Corp., 139 N.J. Super. 578, 354 A.2d 685, 688 and n. 1 (1976). For a general criticism of this

rule see 2A Larson, The Law or Workmen's Compensation Sec. 75.22-.23 (1976).

An alternative approach would be to use a comparative responsibility system and reduce the Worker Compensation lien to the extent of an employer's negligence. In light of the apparently limited number of cases that involve subrogation, we are uncertain that this "remedy" will have a substantial impact on reducing the cost of insurance for manufacturers of industrial equipment. Also, allowing the trier of fact to engage in an apportionment of fault may increase transaction costs, but this may not be substantial if the state already has a comparative fault system.

Summary and conclusions

Balancing of all considerations that came to the attention of the Task Force, we would be in accord with the approach utilized in a minority of states, where a subrogation claim is reduced by the amount an employer was at fault in causing an injury to a worker.

In order for this remedy to have a meaningful impact on the cost of insurance for manufacturers of industrial equipment, it should be accompanied by a modification of the collateral source rule where the worker is joined in the subrogation action. Otherwise, the net result of the remedy would simply shift an award from the negligent employer toward providing a "double recovery" for an employee who already obtained Worker Compensation. For the arguments in favor of and against modified abolition of the collateral source rule see p. 70.

Validation of Hold Harmless Agreements

Introduction to the Problem

Anecdotal data submitted to the Task Force indicated that businesses affected by product liability have become very interested in both the validity and the utility of hold harmless agreements. For example, a president of a small eastern corporation indicated that he spends a substantial amount of his personal time attempting to determine "who is going to issue hold

harmless agreements to whom." Letter to Task Force dated February 3, 1977. In the context of product liability, hold harmless agreements are inserted in sales contracts in an attempt to assign ultimate responsibility with regard to injuries or damage that may be caused by the product in question.

The apparent growing use of hold harmless agreements may be circumstantial evidence of the importance of the product liability problem. For example, we have received anecdotal data indicating that certain exporters will only ship their products to the United States if the buyer agrees to hold them harmless in the event of a product liability suit. We have heard that some parties selling goods within the United States may only be able to reach certain buyers if the seller agrees to hold the buyer harmless. Letter to Task Force dated October 15, 1976.

Most of our independent contractor discussions about the hold harmless agreement focused on the device as a remedial measure for sellers of machines and other industrial equipment. In that context, these agreements may provide a vehicle whereby sellers acutely affected by product liability insurance availability or affordability problems can shift part of the problem onto a buyer who has suffered a lesser impact. See Insurance Study at 4-102. As a practical matter, hold harmless agreements allow sellers of such equipment to make an "end-run" around the rule that bars them from bringing a contribution action against negligent buyer-employers. See p. 86.

While it has been suggested to the Task Force that it might recommend that hold harmless clauses be specifically authorized by legislation, it has also been submitted that the utility of such devices may be limited because small tool companies or other small businesses may not be able to use them against large manufacturer-purchasers. See letter to Task Force from Dennis R. Connelly, Counsel to the American Insurance Association (10-26-76). As our Insurance Study warns, "Care must be taken to prevent excessive use of market power by a monopolistic or dominant supplier of products to compel purchasers to accept hold harmless clauses." Insurance Study at 4-102.

Proposed Solutions to the Problem

The Task Force was concerned about both the proper use and potential misuse of hold harmless agreements. It sought the Department of Justice's view about the antitrust implications of those clauses. In a memorandum prepared for the use of the Task Force a department spokesman observed that:

Unilaterally imposed "hold harmless" clauses have no significant effect on competition and would probably be held legal under the Sherman Act; however, any agreement by manufacturers to impose such clauses on their customers would eliminate an important level of competition between those firms and would probably be per se illegal. Memorandum from the Department of Justice dated 10/15/76.

In that connection, the memorandum observed that in the absence of any purpose to restrain competition, parties are free to bargain as to price and that a "hold harmless" agreement is, in essence, part of the price being exacted by the seller. The memorandum expressed no view on whether the insertion of such clauses on a "take it or leave it" basis might be viewed as an unfair practice within the meaning of section 5 of the Federal Trade Commission Act.

Our Legal Study found that state courts (or Federal courts interpreting state law) were divided as to whether commercial purchasers could contract to assume the risk of liability suits. See Volume VI, Legal Study at p. 41. On one hand one court noted:

When the parties are business concerns dealing in a commercial setting and entering into an unambiguous agreement with terms commonly used in commercial transactions, the contract will not be deemed a contract of adhesion in the absence of evidence of unusual circumstances. K-Lines, Inc. v. Roberts Motor Co., 541 P.2d 1378, 1384 (Ore. 1975).

On the other hand, some courts appear ready to regard commercial purchasers as "consumers" unless there is evidence to establish the purchaser's specific expertise in the manufacture

of the product. See Sterner Aero AB v. Page Airmotive, Inc., 499 F.2d 709 (10th Cir. 1974).

This result was reached although the seller-manufacturer had done nothing to frustrate the recovery of potential product liability plaintiffs. It was still subject to liability to that individual in spite of the agreement.

Summary and Conclusions

As our Legal Study indicated, the doctrine of strict product liability was intended primarily to protect individual consumers. If the interests of those parties are unaffected, there appears to be no apparent reason to prevent commercial purchasers from contracting to assume the risk of loss among themselves.

Nevertheless, apart from actual antitrust violations, a seller can exercise de facto monopoly power if a buyer cannot purchase equipment without exercising a hold harmless agreement. Moreover, since hold harmless agreements tend to shift the entire economic responsibility for a product-related accident from one party onto another, they can thwart the goal of placing responsibility for an accident on the party best able to prevent it. In some situations the seller could most efficiently minimize the risk. It should be noted that in the context of machine tool sales contracts (assuming the buyer has ample opportunity to inspect the machine) this adverse result may not occur. The purchaser-employer may be in the best position to avoid accidents. Thus, if legislation were to specifically authorize hold harmless agreements, it might do so with the goal of accident prevention in mind. The legislation might validate hold harmless clauses where the buyer of the product requested it without safety features, altered it, failed to maintain it properly, or to warn employees with regard to specific dangers that might arise from it.

Legislation validating hold harmless clauses could consider all major policy matters connected with product liability and clarify for insurers and manufacturers alike what terms a valid clause should contain. This might provide insurers with a basis for limiting product liability insurance rates on the part of sellers who utilize such clauses.

A final, more technical problem with hold harmless agreements was brought to the attention of the Task Force by Howard Clark, Special Assistant to the Administrator of the Federal Insurance Administration. He observed that loss experience that derives from hold harmless clauses might not be included in products liability experience for ratemaking purposes, but would be more likely to impact the "contracts" component of the comprehensive general liability policy. In that regard, he suggested that insurers and insurance ratemaking organizations would want to take steps to ensure that losses arising out of hold harmless agreements are included in the product liability ratemaking process.

Worker Compensation as a Sole Source of Recovery--
Abolishing the Worker's Third-Party Claim

Introduction to the Problem

Some manufacturers of capital goods and others have suggested to the Task Force that a substantial "cure" for the product liability problem is to make Worker Compensation insurance the "sole source" of recovery for workers injured by defective products in the course of employment: the worker would no longer have the right to bring a tort claim against the manufacturer of that product.

The attractiveness of this remedy is based on the assumption that it might result in lower product liability insurance premium costs for some manufacturers in groups particularly hard hit by the rise in product liability premium rates. See Chapter III at pp. 10-12. Of course, this remedy will be of little value to manufacturers of consumer goods (or principally consumer goods). Nevertheless, its potential effect on alleviating product liability problems for manufacturers of workplace products led our Insurance Contractor to conclude "that this (remedy) should be given high priority for further development and evaluation." Insurance Study at 4-80.

How does this remedy reduce overall insurance costs? First, the worker will receive less money when he is injured by a defective product in the workplace because he will lose his right to bring a tort action against the manufacturer of the product.

In that regard, cases reviewed by our Legal Study suggest that it is unlikely that a law creating the sole source remedy would be upheld unless workers received some benefit or quid pro quo in return for their giving up their right to sue the product manufacturer. Assuming that the worker was given an increased Worker Compensation award (for example, at the level proposed by the National Commission on State Workmen's Compensation Laws), those who propose this remedy assume that the worker still would not receive damages for pain and suffering.² Thus, the total insurer "payout" for a specific product-related workplace injury would be less than under the present system.³

The amount of potential savings in terms of monies "paid out" to workers will, of course, depend, in part, on how high Worker Compensation levels must be raised if the sole source remedy were enacted. Probably this is a question that cannot be considered in isolation apart from general Worker Compensation reform. In that regard, it was the conclusion of the Report of the National Commission on State Workmen's Compensation Law that rates were far too low in many states. Since the issuance of that report all but two states have increased benefit levels. See "Workers' Compensation: Is There a Better Way?" at p. 20 (cited p. 86, supra). p. 108.

In states that have not raised Worker Compensation benefits to the National Commission's recommendation of 66 2/3 percent of the state's average weekly wage, it might be fair and reasonable to cut off a worker's right to sue manufacturers of products in exchange for a higher Worker Compensation payment benefit. The worker would gain the right to have a prompt payment that would more adequately reflect his economic losses than the present system. This exchange would be somewhat³ akin to the original "bargain" made in the area of Worker Compensation (see Volume VI, Legal Study at p. 66-67).

On the other hand, the fact that Worker Compensation rates have already been rising may have created a situation where there is nothing left to give workers as a quid pro quo in some jurisdictions. An AMIA Research Survey submitted to the Task Force stated that a state-by-state study found that a worker earning the national average wage and receiving countrywide average benefits would be paid 75 percent of his "take-home" pay in Worker Compensation benefits as of January 1, 1976. Of course,

there still may be latitude to raise Worker Compensation rates even further. Thus, a labor representative to the Under Secretary of Commerce's Product Liability Advisory Committee indicated that labor would find the "sole source" remedy unacceptable unless workers received 100 percent of their actual economic losses in all cases. See the remarks of Jacob Clayman, Transcript, Advisory Committee (2nd meeting, November 1, 1976) remarks of Jacob Clayman at 46.

It has been suggested to the Task Force that if Worker Compensation rates were raised to that level, it might create problems of malingering as well as overwhelming insurance capacity problems in the Worker Compensation area. Recently reported insurance data show losses already mounting. Thus, if Worker Compensation rates were raised very substantially, one might trade a limited product liability insurance capacity problem for a major Worker Compensation capacity or unavailability problem. See Best's Insurance News Digest p. 10-11 (1977).

Of course, if Worker Compensation payments were only raised in the situation where a worker was injured by a defective product, the cost of raising Worker Compensation recovery would not be that great. In that regard, our Industry Study indicated on the basis of the California Worker Compensation Survey that injuries that involved industrial equipment represent 28 percent of all Worker Compensation claims. See Volume II, Industry Study at D-17. On the basis of an actuarial analysis, our Industry Study projected that the raising of state Worker Compensation scheduled awards to the levels of the Federal Employee Compensation Act only in product-related cases would be less than one-third as costly as an across-the-board increase. See Industry Study at VI-20.

Nevertheless, as will be detailed in our discussion of the implementation of this remedy, it may not be sound to increase Worker Compensation benefits only in cases where workers have been injured by industrial equipment. See p. 87. But an across-the-board increase in state Worker Compensation levels (up to the Federal Employee Compensation Act level) might well increase overall (Worker Compensation plus product liability) insurance costs. Id.

This conclusion, however, does not suggest that the sole source remedy is inadvisable. One must recall that the reasons that favor raising Worker Compensation payments go beyond product liability and the pressure to increase those rates would exist even if there were no product liability problem.

Moreover, it has been suggested to the Task Force that if Worker Compensation rates were raised (and more universally experience rated), employers would be more likely to adhere to OSHA standards concerning safety with respect to products used in the workplace and also encourage them to devise their own safety efforts. See Products Liability: A Proposed Solution, The American Textile Machinery Association, p. 11 (1977). If this assumption is correct, the number of injuries caused by products might be reduced.

In sum, the overall insurance cost savings rendered by the sole source remedy might be more than cancelled out by the costs of providing workers with a substantial across-the-board increase in Worker Compensation. Nevertheless, the pressure to increase Worker Compensation payments goes beyond problems caused by product liability. If Worker Compensation payments are to be increased, it would be sound to consider that in connection with the sole source remedy.

A second way the sole source remedy may reduce overall insurance costs is by lowering transaction costs. There will no longer be expenditures connected with an employee bringing a separate tort suit after he has already collected his Worker Compensation payment. According to our Insurance Study, insurers could save 15 to 20 percent of the premium dollar in reduced loss adjustment expenses and lower commissions, and the worker could save an equivalent or higher amount in his own legal fees. The combined result could nearly double the percentage of insurance premiums actually paid to a claimant from the range of 33-38 percent to 65-70 percent. See Insurance Study at 4-75.

A recent study by the Interdepartmental Workers' Compensation Task Force suggested that transaction costs in the area of Worker Compensation might be a good deal higher than had been assumed, at least in serious injury and death cases. See "Workers' Compensation: Is There a Better Way?" at p. 27 (1977). The Task

Force estimates that only about 52 percent of the premium dollar in serious Worker Compensation cases goes to the claimant as payments. Id. Nevertheless, the issues that cause high transaction costs in Worker Compensation cases (extent of damage, did the worker suffer a work-related injury or a disease) are not directly related to those that have mired product liability cases (e.g., misuse). Thus, making Worker Compensation a "sole source" for recovery will probably not increase transaction costs in Worker Compensation cases. Further, overall insurance cost savings will occur because an entire category of product liability cases will be eliminated.

Nevertheless, as we have learned, some of these transaction costs may "come back." In that connection, it might seriously compromise the Task Force's goal of placing the incentive for risk prevention on the parties who are best able to accomplish that end if the manufacturer of a workplace product were totally shielded from responsibility when a defective product caused an injury in the workplace. This result would occur unless the manufacturer in some way contributed to a "sole source" Worker Compensation system.

As will be detailed in the next section, one of the more promising approaches to solving this problem is to include in the sole source remedy a post-accident arbitration proceeding wherein the manufacturer of a defective product would contribute to the cost of the injury in question. This proceeding would, of course, bring back some of the transaction costs the sole source remedy attempts to save. While we have not obtained data on the point, a post-accident arbitration proceeding between employer and product manufacturer, applying principles of comparative fault, would appear to be less costly than product liability suits brought by workers under the present system. See the analysis by O'Connell, "An Immediate Solution to Some Products Liability Problems: Workers' Compensation as a Sole Remedy for Employees, with an Employer Remedy Against Third Parties," 1976 Ins. L.J. 683.

In sum, the sole source remedy would appear to reduce overall insurance transaction costs although some new transaction costs may arise in allocating responsibilities between product seller and the employer.

Proposed Solutions to the Problem

On the basis of the discussions in the last section, it can be seen that in order to implement a sole source remedy, one must increase benefits and also find some way for the product manufacturer to pay into the system.

With respect to both of these issues, our Legal (see Volume VI, Legal Study at p. 72) and Insurance (see Insurance Study at 4-66) Studies provide some details and some models. Nevertheless, neither study indicates the number of cases or amounts of claims that would be involved under various alternatives. Studies of Worker Compensation systems may help fill this gap. See Industry Study at VI-14. For this reason, our Insurance Study recommends that the sole source remedy be considered in an evaluation of the entire Worker Compensation system and its desirable level of benefits. See Insurance Study at 4-81. Our study of the sole source remedy confirms this belief. Therefore, we can make no specific recommendations here as to the amount Worker Compensation payments should be raised if a sole source remedy were enacted. We only note that such an increment would be a necessary part of such an enactment.

One method of reducing the cost of that increment is briefly explored by our Insurance Study: increase benefits only for injuries involving "industrial equipment." See Insurance Study at 4-68. The Insurance Study suggests that there may be some inequity in allowing higher benefits for an injury involving a workplace product as compared to a similar injury not involving such a product. Of course, to some extent that is the situation today: a worker injured by a defective product has the potential of a greater recovery than one who is merely injured by the negligence of a fellow employee. A second problem with this cost-cutting measure is that it will bring about disputes as to whether a worker's injury was caused by defective industrial equipment. These reasons cause us to be less optimistic than our Insurance Study was about this approach.

Aside from setting higher Worker Compensation rates, this remedy would only seem viable if a product manufacturer contributed to the Worker Compensation system. This is needed to ensure that manufacturers will

have a continued incentive to produce safe workplace products, and it will help justify a distinctive treatment of manufacturers of products as compared to other third parties. In that connection, it is assumed that the sole source remedy will apply only to product-related injury cases: workers would still be allowed to sue other third parties, e.g., negligent drivers who injure the worker while they are in the course of employment.

Professor O'Connell has suggested one method as to how sellers of equipment could contribute to a worker's award under a sole source remedy. See O'Connell, "Bargaining for Waivers of Third-Party Claims: An Answer to Product Liability Woes for Employers and Their Employees and Suppliers," (1976) U. Ill. L. Forum 435. Both our Legal and our Insurance Studies explored Professor O'Connell's proposal. See Volume VI, Legal Study at p. 85; Insurance Study at 4-79. In essence, Professor O'Connell has suggested that the sole source remedy could be implemented through collective bargaining agreements between employers and unions. In the agreement employees would forego their right to sue certain manufacturers of industrial products used at the employer's shop or factory. Professor O'Connell assumes that if this were done, the product seller would obtain product liability insurance at a lower cost. He then assumes that the product seller could pass this cost along to the purchaser-employer, who would, in turn, pass it along to the employees in the form of higher wages, Worker Compensation benefits or other fringe benefits.

Our Insurance Study did an economic analysis of this proposal and concluded that the average "savings" per employee would be less than \$1.20 per month. See Insurance Study at 4-80. Therefore, there may be little incentive for employees to accept this agreement.

A second problem with the O'Connell proposal is that the manufacturer might not obtain the insurance savings unless a significant portion of his products were being used at plants where these agreements were enforced. See Volume VI, Legal Study at p. 88. The Legal Study does suggest that the merit in O'Connell's plan is that a waiver of any employee's rights produced through a collective bargaining process might survive a

constitutional challenge better than a legislatively implemented system. Id.

On the whole, it would seem that a voluntary approach might not be extensive enough to assure across-the-board insurance rate savings. A legislatively mandated method for product manufacturer contribution to the Worker Compensation system may be necessary if the remedy is to have a broad-scale practical effect. In that connection, at least two legislative approaches to the sole source remedy have been brought to the attention of the Task Force.

The first would provide manufacturers of products with an immunity that is equivalent to that of employers. The manufacturer would, in turn, contribute to the Worker Compensation insurance system based on the number and cost of products he sold within a particular state. Presumably, his insurance premium would also be based on an estimate of the potential risk involved with his products. This "preaccident" approach would be similar to the one used in Worker Compensation itself: the manufacturer would make his monetary contribution to the system before an accident occurs.

One of the problems with this method is that the manufacturer is not analogous to an employer. The employer operates in a fixed relationship with his employees. On the other hand, manufactured products can be resold across state lines. What would occur in that situation? If this remedy were enacted on a state-by-state basis, it is clear that insurance savings might be lost because the manufacturer might be subject to tort liability in a state where his machine had been resold. A second problem with this approach is that the amount the manufacturer would have to pay would not necessarily be based on the number and extent of injuries caused by his product. In that connection, it might dull incentive (or at least not create incentive) for risk prevention. The main advantage of this approach is that it would save transaction costs. One would not need a case-by-case determination of the product manufacturer's responsibility with regard to workplace accidents.

A second approach would have the manufacturer make his contribution to the worker's award after a specific workplace

accident occurred involving his product. At the initiative of the employer, an arbitration proceeding would be held to determine the extent of the manufacturer's responsibility. The trier of fact would compare the manufacturer's conduct with that of the employer. This approach would help preserve the manufacturer's incentive to develop safe products. Also, it would prevent the manufacturer from externalizing the costs of accidents caused by his defective products.

On the other hand, as has been indicated, it would increase transaction costs because it would create the potential need to make a decision in every product-related injury case. Presumably, these transaction costs would be less than those that arise under the present tort-litigation system: the arbitration system would be less expensive than a jury trial, and there would be no plaintiff's attorney contingent fee involved. It would be necessary, however, to work out some "rules of responsibility" that determine when a manufacturer would be subject to liability. For example, it would be helpful if the sole source legislation itself indicated the period of time wherein a manufacturer might be liable for injuries caused by his product. Where the worker is ensured a reasonable recovery for his injuries and an employer could have avoided an accident occurring on an old machine, the manufacturers' argument that they should not be responsible "forever" for injuries caused by their products becomes a stronger one. A rule should be established to guide arbitrators as to who (employer or manufacturer) should be responsible for employee misconduct in his use of the machine. The arbitrators should also be provided with a rule that would indicate the basic standard of responsibility for manufacturers of industrial products in the context of this new system: should it be the same as under the present tort-litigation system? Obviously other issues could be addressed and these three are only examples of some of the major ones.

Finally, it should be noted that a problem with this approach is that the manufacturer would have no way of contesting the fairness of the original award received by the worker. That award would be "given" at the time of the arbitration proceeding.

Our Legal Study provides more information about this approach and about allocating responsibility between employer and

manufacturer under a sole source remedy. See also O'Connell, supra at VII-93, "An Immediate Solution To Some Product Liability Problems: Workers' Compensation as a Sole Remedy for Employees, With an Employer's Remedy Against Third Parties," 1976 Insurance Law Journal at p. 683.

Summary and Conclusions

The cost effectiveness and potential impact of the Worker Compensation sole source remedy make it an attractive one for serious legislative consideration. It would appear that it should be considered along with more general Worker Compensation legislative reform. In that context, estimates can be made about the overall insurance impact of this remedial proposal.

While we have concluded that the worker must receive some benefit for forgoing his third-party claim, we have no recommendation as to the extent of that benefit.

We also conclude that the best procedure for having a manufacturer of a defective product contribute to the worker award is by a post-accident arbitration proceeding. We appreciate the fact that considerable thought must be given to developing the details of that procedure. Otherwise, it will be a substantial loss of the transaction cost savings that can be achieved by this remedy.

NOTES TO PROPOSED MODIFICATIONS OF PRODUCT LIABILITY RULES
RELATING TO A DEFENDANT'S RIGHT AGAINST THIRD PARTIES--THE
PROBLEM OF THE WORKPLACE INJURY

¹The original "bargain" was created because of failure of the tort system on the behalf of injured workers, not because of a shortage of insurance capacity.

²In survival actions in some states, representatives of the worker's estate may obtain damages for pain and suffering if the worker experienced these feelings prior to his death.

³This assumes, of course, that the worker would be successful in his product liability suit against the manufacturer.

Part V

Proposed Modifications of Product Liability Insurance Mechanisms

PROPOSED MODIFICATIONS
OF PRODUCT LIABILITY INSURANCE MECHANISMS

Introduction to the General Problem

During the course of our study, a number of persons expressed the view that the product liability problem could be solved by modifications of product liability insurance mechanisms: it is alleged that these modifications would allow the tort-litigation system to function reasonably well and would eliminate any need to enact tort law modifications that would reduce the liability exposure of defendants or to modify the tort-litigation system. See the remarks of Richard Marcus, Working Task Force Symposium at pp. 145-146. See also Testimony of Ralph Nader before the Senate Select Committee on Small Business (December 8, 1976), reprinted in part in the Product Safety and Liability Reporter at pp. 969-970 (1976). On the other hand, some insurers interviewed by our insurance contractor emphasized the fact that modifications in insurance mechanisms will not eliminate the fundamental causes that have led to major increases in product liability rates. This led our insurance contractor to state that there were only two approaches to controlling or reducing overall product liability cost:

One is to attack the problem by taking steps to reduce product hazards. The other is to modify or replace the tort liability system in order to restore eroded defenses or to cut down on litigation cost and overly generous awards. Insurance Study at p. IV-3.

We are not entirely persuaded that the insurance contractor is correct on this matter and we will focus on that issue in connection with our discussion of both pooling and reinsurance mechanisms.

Also, it should be noted at this point that one potential means for lowering product liability costs, at least for some insureds, is by overcoming some of the major shortcomings in the product liability insurance ratemaking process. It has been

alleged that while such reforms would not necessarily lower overall insurance costs, they may terminate a situation where some insureds bear an unfair burden of those costs. Our analysis of product liability insurance ratemaking problems is set forth in Chapter V at pp. 9-33.

Here we will discuss some of the major problems and benefits connected with residual insurance mechanisms that differ from traditional product liability insurance marketing approaches. These include assigned risk plans, pooling mechanisms, companies, and government-operated insurance and reinsurance. Finally, there is a discussion of captive insurance companies and structured self-insurance programs.

We will also discuss three proposed reforms that are primarily directed at protecting injured consumers from product liability problems--these include mandatory product liability prevention programs, mandatory product liability insurance and unsatisfied judgment funds.

Residual Insurance Market Mechanisms

Residual Insurance Market Mechanisms--at the State or Federal Level?

Both our Insurance and Legal Studies concluded that residual insurance market mechanisms, whether voluntary or mandatory, would only be effective if they were conducted at the Federal rather than the state level. See Insurance Study at p. IV-16; Legal Study, Volume VII (at p. 1.)

In that regard, our Insurance Study observed that the interstate nature of the product liability problem faced by manufacturers and distributors of goods suggests that uncoordinated efforts by individual states in the area of insurance pooling or reinsurance would result in both conceptual and administrative difficulties. The study noted that "this is one of the most important distinguishing features between the product liability and medical malpractice insurance problems." Insurance Study at IV-17. As the study observed, a manufacturer often has plants in several States that are used for the purpose of assembling a finished product. Several other plants

manufacture component parts. With which state mechanism would each separate risk be placed? Would the manufacturer (or insurer in the case of reinsurance) be forced to deal with all State mechanisms under a rule by which responsibility is allocated on the basis of where a product is sold?

Many manufacturers would find this to be extremely burdensome. Not only would the manufacturer be forced to do business with many entities (each with its own separate requirement), but some manufacturers would not be able to provide information necessary to do so. The Insurance Study observed that manufacturers often cannot document the actual distribution of their products to consumers. Moreover, subsequent resale of durable goods would present a very difficult issue.

As the Insurance Study noted, States have differed with regard to the amount of insurance that special insurance mechanisms are required to provide in the case of medical malpractice. It would seem that the same situation would arise in the area of product liability. If this occurred, the manufacturer would face increased difficulties in trying to coordinate additional coverage purchased in the voluntary insurance market. The insurance contractor did not believe that having a manufacturer insure its responsibility through the mechanism in the State in which the manufacturing is completed would be an answer to the problem. See Insurance Study at pp. IV-16-17.

In that regard, our Legal Study noted that, in the area of medical malpractice insurance, the State supervising the mechanism, the State of the insured's place of business, the State of the injury, and the State of the injury victim's residence are usually the same. In product liability, victims injured by a given product may be scattered across the fifty States. As a result, a pooling or other residual market mechanism set up in one State would have to bear the financial burden of injuries caused in another. An Advisory Committee Report to the National Association of Insurance Commissioners strongly suggests that this reason would dissuade State legislatures from enacting product liability residual insurance market plans. See Adv. Comm. to NAIC Report 4-9 (2/15/77).

Another difficulty with having the State of manufacture insure is that it is unlikely that its pool would be large enough to affect the availability or affordability of product liability insurance rates. See Volume VII, Legal Study at pp. 3-4.

Further, it is our judgment that a residual insurance market facility (either pooling or reinsurance) should include mandatory loss-prevention guarantees. See p. 141. Obviously, it will be easier for manufacturers to comply with such regulations if they are uniform in nature.

Our Legal Study observed that this problem might be overcome by having Federal law mandate that the States implement specific loss-prevention features as part of their residual market plans. Nevertheless, this might require heavier Federal subsidies than if that problem were solved at the Federal level. Also, it is uncertain whether State officials would be strongly motivated to police local manufacturers who ship their goods to other States. See Volume VII, Legal Study at p. 5.

Finally, a federally designed, residual insurance market mechanism may be preferred to State-level plans because injury and engineering data may be more effectively collected on a national basis. The collection of these data may bring about a more accurate ratemaking procedure for the reinsurance mechanism--it may also provide insurance companies operating in the voluntary market with more precise information for their ratemaking procedures. See Chapter V, at 39-40.

In sum, while it might be worthwhile to have a variety of product liability residual insurance market mechanisms explored at the state level where their viability could be tested (the need for such mechanisms may also vary in different States), our contractor reports strongly suggest that the very nature of product liability insurance indicates that these mechanisms must be implemented at the Federal level. A middle position is to utilize federal standards with a state regulated residual market scheme. This approach, however, may not result in the amount of coordination that is desirable in this area.

Residual Insurance Market Mechanisms--Under What Circumstances Should They Be Subsidized?

Introduction to the Problem

Residual insurance market mechanisms have the potential to increase the availability of product liability insurance without subsidization either from government or from other liability insurance lines. As our discussion of pooling details, this may occur because of savings in administrative costs and also because a pool (if large enough) may allow the insurer to be less conservative in its ratemaking process--the insurer will be better able to absorb the cost of a product liability judgment should it occur. A government-operated reinsurance mechanism may provide some of the benefits of pooling and may also result in lower product liability insurance rates for individual insureds. This is true because the mechanism itself will not be subject to income taxes nor will it necessarily have to set aside funds in reserve accounts.

Nevertheless, if a product liability residual insurance market mechanism is to make a substantial impact in easing problems of product liability insurance affordability for businesses that have been severely affected by price increases, it seems likely that the program will have to be subsidized. If a subsidy underlies the program, strong policy reasons must be identified and factually supported before it is enacted into law.

Of course, a Federal reinsurance program might be developed that attempted to set rates in accordance with actual market conditions. Nevertheless, it would need to take risks that would not ordinarily be undertaken by private reinsurers. While this would not be a "subsidy" in the sense of making a direct payment to a citizen, the process would place a burden on Federal funds that was not there before. For that reason, it would seem that public policy reasons would have to be developed and factually supported before a Federal reinsurance program was established. A much stronger base would, of course, be needed to support legislation that provided for a residual insurance market mechanism that would underwrite risks at rates far lower than market conditions would indicate.

It should be noted that a residual insurance market mechanism--especially one involving mandatory pooling--could be subsidized without the use of government funds. This type of subsidization involves the use of insurers' stronger liability lines to support weaker ones (i.e., certain high-risk product liability lines). This process has occurred in the area of assigned risk plans (see p. 104) and also under some State-level medical malpractice Joint Underwriting Association programs. See Volume VII, Legal Study at pp. 81-82. Insurance trade associations have emphasized to the Task Force staff that this process of forced subsidization might seriously weaken the voluntary insurance market. Also, our Legal Study observed that "high-risk insurers have correctly argued that their market would be impaired by the extension of coverage under [residual market mechanisms] especially if . . . rates were established at lower levels." Volume VII, Legal Study at p. 46 (specifically discussing assigned risk plans).

In sum, if a subsidy is to be used in the area of product liability, whether it flows from government or from other liability insurance lines, strong policy reasons must justify that support. Policy reasons should also be developed to support placing government capital at risk. Obviously, the greater the subsidy, the greater the need to justify the decision.

Justification for a Subsidy

If a government subsidy is to be used in the area of product liability, the legislature should determine:

- Whether businesses are threatened with extinction because of product liability judgments or insurance costs.
- What would occur if these businesses were to terminate operations.
- Whether subsidized insureds follow reasonably safe practices in the manufacture of their products.

The Task Force's views with respect to each of these issues will be summarized below.

Are businesses threatened with extinction because of product liability judgments or insurance costs?

A number of members of the Product Liability Advisory Committee to the Under Secretary of Commerce have suggested that the product liability problem has threatened the very existence of some businesses. We have also received many letters suggesting that this is true. Nevertheless, data collected by our Industry Report do not show that any businesses have actually terminated solely because of product liability problems. Our full discussion about business failures and their relationship to product liability problems is presented in Chapter VI at p. 32.

The data do show that the cost of product liability insurance has increased substantially for many companies in our target groups. While the average cost is less than 1 percent of sales, this has not been true for all industries. Data recently supplied to the Task Force by the Insurance Services Office identified a number of product classes where combined Bodily Injury and Property Damage insurance rates are considerably more than 10 dollars per thousand dollars of sales (more than 1 percent of sales). Also, those data show that a number of product classes have experienced rate increases of more than 100 percent between August 1975 and December 1976. Chapter V illustrates that some product groups appear to be experiencing a double impact on their insurance premiums: (1) substantial increases in insurance rates, and (2) high costs relative to product sales.

Our data suggest that a number of companies in these industries (especially smaller businesses) are going without insurance. These companies may not be in a position to withstand a substantial product liability judgment. On the other hand, some companies have stayed insured. Nevertheless, their premium costs appear to have risen at a rate that is substantially higher than other business costs. It would seem that the cost of product liability insurance is so high for some businesses that it will seriously affect the profitability of normal business operations.

In order to learn more about these industries, the reader is directed to Chapter Tables V-4 & V-6, Chapter VI, pp. 11-27. It

should be noted that the product liability situation is extremely fluid in nature; thus, it is very difficult to make generalizations about which businesses are "in trouble." Different businesses within the same product group may, in fact, be subject to substantial variance in product liability insurance rates.

Therefore, it may be necessary to have a final determination (as to which businesses are actually threatened with extinction because of product liability costs) made at the State level through the Office of State Insurance Commissioners. This Office, after a full hearing on the matter, could determine whether insurance is not available or affordable for a given class of risks in the voluntary market. See Volume VII, Legal Study at p. 89. While we have concluded that residual insurance market mechanisms in the area of product liability would operate most effectively at the Federal level (see p.115), the means of commencing (or terminating) the operation of such mechanisms may have to be implemented at the State level.

What would occur if these businesses were to terminate operations?

Assuming that the product liability problem does affect some businesses to the extent that its ultimate effect may be to terminate them, a legislature should make some estimate as to the consequences of such a termination. We have heard that one end result may be to transfer whole industries (e.g., metal-working machinery and equipment) to foreign manufacturers. On the other hand, some foreign manufacturers of high-risk equipment have alleged that the United States markets might eventually be closed to them because of rising product liability insurance costs. While our data are mainly anecdotal in regard to this matter, it would appear that businesses that are seriously threatened by product liability problems are more likely to be absorbed by larger manufacturing enterprises in this country than to be transferred to foreign manufacturing sources. Again, our Industry Report suggested that the product liability problem has been considerably more adverse for small as compared to large businesses. See Industry Report at p. I-6.

A second consequence that might occur if a number of businesses were to terminate operations is that persons injured by a product might be left without a defendant who could pay a judgment. This could occur if the manufacturer had no insurance or absorbed too high a deductible. The Task Force cannot say with certainty whether businesses that are going without product liability insurance (or absorbing very high deductibles) can afford to pay product liability judgments out of their own capital. Chapter VI at p. 26.

Where a substantial number of manufacturers of a particular type of product, e.g., ladders, face severe product liability insurance problems, a legislature may find it desirable to make a determination about the social need for that product within the economy. This type of policy decision was beyond the scope of our study and we have made no determination with regard to it.

Whether subsidized insureds follow reasonably safe practices in the manufacture of their products.

While the Task Force looked with favor on remedial actions that would ensure that businesses had "affordable" product liability insurance with adequate coverage, it has made the judgment that this effort should only be made on behalf of "manufacturers that engage in reasonably safe design and quality control practices," (see p. 5). Otherwise, the process of providing product liability insurance would thwart the Task Force's goal of placing "the incentive for risk prevention on the party or parties who are best able to accomplish that goal." Thus, if a subsidy is to be provided, a procedure must be developed that will assure that its ultimate beneficiaries engage in reasonably sound product liability prevention techniques. This seems essential for any program where the Government is in effect subsidizing an insured to protect itself against self-created risks.

While this is a judgment that most reasonable persons would agree with,¹ we have in the course of our study learned that it is difficult to implement it. We have discussed this problem in a separate section. See p. 175-177.

Analogous Areas Where Federal Subsidies Have
Been Used in the Past

With respect to all of these issues, it is helpful to look at analogous areas wherein Federal subsidies have been utilized in the past. Two potential analogs are the National Flood Insurance Act and the Urban Property Protection and Reinsurance Act of 1968 as amended.

The National Flood Insurance Act was prompted by the fact that flood insurance was not being offered by the private sector. This unavailability problem occurred because those with severe exposures were interested in purchasing coverage where others were not. As a consequence, insurers were unable to "spread the risk" of flood disasters.

Thus, the National Flood Insurance Program responded to a total unavailability problem. In return for the heavy subsidization needed to provide coverage for existing properties at affordable rates, communities that benefited from the program had to adopt flood management plans which would render new construction relatively free from the chance of major flood damage. The Federal Insurance Administration was charged with the responsibility of mapping all flood management plans. According to Howard Clark, Special Assistant to the Administrator of the FIA, the program's staff anticipated that after the communities had adopted the necessary flood management measures, flood insurance would become available in the private sector.

The situation in flood insurance, however, was one where unavailability of insurance was much greater than is the present case in the area of product liability.

The background of the Urban Property Protection and Reinsurance Act of 1968 as amended is also a possible analog to the product liability situation. Currently, the act encompasses two distinct programs, Riot Insurance and the Federal Crime Insurance Program, the latter having been added by a 1970 amendment. Mr. Clark has noted that the Riot Reinsurance Program has been self-supporting.

The original act made provision for Federal reinsurance for riot or civil commotion losses sustained by insurers under their property insurance policies. The fundamental purpose of the program was to make essential property insurance available to owners of property or small businesses in urban centers. It was found that the riots and civil commotions in the major cities in the mid-1960s led insurers to refuse either to write or to renew fire or standard property coverage policies in the inner cities. Owners of properties could not sell, repair, or rehabilitate their property because of the unavailability of coverage. Businesses could not obtain loans or credit because of the want of insurance protection. Similar findings prompted an amendment to the act, the Federal Crime Insurance Program of 1970. This was a direct insurance program in which the Government itself provided coverage in any State where the Administrator found that crime insurance (burglary, robbery) was either not available or was not available at affordable rates.

The situation with respect to the Urban Property Protection and Reinsurance Act of 1968 as amended was also one where the primary liability insurance problem was one of availability, not affordability. As Chapter VI summarizes and Chapters III and V detail, our data show that the primary problem in the area of product liability is affordability, not availability. Our research has shown that many insurance companies appear willing to write product liability insurance.

Nevertheless, as has been suggested elsewhere in this report, the concepts of availability and affordability merge into one another at some point. See Chapter VI at p.9-10.

It would seem that a basic question is whether a sound business that follows reasonably safe product liability prevention techniques will be able to pass the cost of this insurance on to the purchaser of his product. In Chapter VI, we have set forth some situations where this may not be possible. If these situations are confirmed by additional data, the problem of affordability becomes the equivalent of the availability crisis that brought about the Federal flood, riot, and crime insurance programs. We are then left with the question of whether the issues set forth in the previous section can be substantiated in order to support a subsidy.

There is a second area of difference between the utilization of a subsidy in the area of product liability and the subsidization of earlier Federal programs--it concerns estimation of costs. It is much easier to define the net worth of a particular property that may be destroyed (by flood, riot, or a criminal act) than it is to estimate the extent to which a manufacturer will be subject to liability because products he manufactures (or manufactured) injured persons or damaged property. This difficulty in estimating costs is at the very heart of the product liability problem. Therefore, a government commitment to subsidize product liability insurance may be more open-ended than it was under the flood, riot, and crime insurance programs. The basic ways to reduce this open-endedness would be to increase predictability in product liability law, to cut transaction costs and to improve the situation with regard to product liability prevention for individual insureds.

A third difference between the product liability situation and the flood, riot, and crime insurance programs is that these earlier mechanisms subsidized insureds against externally created risks. Product liability insurance, by definition, protects a manufacturer against self-created risks. Where liability is imposed on the manufacturer under a pure, strict liability theory, the use of a subsidy might be justified on the basis of the factors set forth in the previous section. It is more difficult to justify the use of Federal funds to supply insurance to manufacturers that will in turn protect them against their own negligent or reckless conduct. Cf. The National Swine Flu Immunization Program, Act of August 12, 1976, Pub. L. No. 94-380 (excluding negligent acts or omissions on the part of participants). The program is discussed at p.VII-144. Therefore, if a subsidy is provided for product liability insurance, it may be necessary to provide an exception for the situation where the insured has engaged in negligent or reckless conduct.

Summary and Conclusions

If the conditions set forth at p. VII-118 can be met, a subsidy may not only be justified, but necessary. In that regard, our insurance contractor noted that a residual insurance market mechanism with no subsidy would ultimately result in the

same total cost situation that exists under the present private insurance system. The study observed, however, that rates for individual policy holders might differ from existing rates. See Insurance Study at p. IV-14. It has been suggested to the Task Force that retrospective rating and full credit for investment income generated by reserves might limit the amount of the subsidy.

While we have concluded that overall insurance costs might be lowered by a voluntary insurance pooling mechanism (see p. VII-135), we are speculating about that matter, and it would be some period of time before one could make a final conclusion with regard to it. The pool would have to be placed in operation, and experience would have to be developed under it. Therefore, at least as a short-range remedy, residual product liability insurance market mechanisms might have to be subsidized if they are to have any substantial effect on product liability premium rates. Nevertheless, as discussed in detail at pp. VII-118-127, it is important for policymakers to limit subsidization to insureds who face insurance unavailability or major unaffordability problems. Otherwise, the program may establish a precedent for providing Federal assistance to anyone who suffers high insurance costs.

If it is necessary to subsidize a residual product liability mechanism, it would seem preferable to use the direct infusion of Federal funds rather than compelling insurers to use stronger liability lines to support weaker ones. The latter process would only result in a further weakening of the voluntary insurance market. Also, it would tend to obscure the actual costs of subsidizing a product liability mechanism.

Obviously, a government subsidy is not the ultimate answer to the product liability problem. Other remedial proposals discussed herein must be looked to in order to provide long-range solutions that will eliminate the need for such subsidization.

Assigned Risk Plans

Introduction to the Problem

Assigned risk plans are usually statutory and vary in the details of their structure. They have been used primarily in the area of automobile liability insurance. Assigned risk plans provide coverage for insureds who are unable to obtain liability insurance in the voluntary market. Applicants are assigned to insurers on a rotating basis. The number of assignments to a particular insurer is usually based upon the extent of its premium writings in the voluntary market. If an insurer wishes to do business in that market, it must participate in the assigned risk plan.

Once a particular risk is assigned to an insurer, the losses from that risk are borne by that insurer--in full. This led Howard Clark, Special Assistant to the Administrator of the Federal Insurance Administration of the Department of Housing and Urban Development to suggest that this situation has caused "some of the smaller insurers to complain of the 'Russian roulette' characteristics of the assigned risk plan" (Memorandum to Task Force dated August 3, 1976).

As our Insurance Study noted, the main advantage of an assigned risk plan in the area of product liability insurance is that it would directly address the problem of availability. See Insurance Study at p. IV-21.

Also, according to our Legal Study, some insurers prefer the assigned risk method of apportionment over other residual risk apportionment mechanisms such as reinsurance pools and joint underwriting associations. These insurers cite the assigned risk plan's minimal effect on marketing expenses and loss adjustment methods of individual carriers, and the fact that carriers are only responsible for, and retain control over, risks specifically assigned to them. See Volume VII, Legal Study at p. 43. Moreover, our Legal Study concluded that the traditional assigned risk method of risk apportionment makes it likely that the plan would withstand constitutional challenges. See Volume VII, Legal Study at p. 48, citing California State Automobile Association Inter-Insurance Bureau v. Maloney, 341 U.S. 105 (1951).

Application of Assigned Risk Plans in the Area of Product Liability--Some Problems

In spite of the widespread use of assigned risk plans in the area of automobile liability insurance, both our legal and insurance contractors found serious difficulties with the application of the concept in the area of product liability. Some of those problems are discussed below.

Eligibility requirements

Eligibility requirements have caused some problems in assigned risk automobile plans. Requirements have been reduced in a number of States, and all that is required in some is that the applicant have a valid driver's license. The eligibility problem would be more difficult in the area of product liability. In that regard, we must assume that assigned insureds would be required to follow reasonable product liability prevention techniques. See the discussion of this matter in Chapter IV and in this chapter at p. 175. In that connection, companion bills for a Product Liability Placement Facility introduced in Massachusetts and Connecticut in 1976 required the Facility to conduct a safety inspection of applicant insureds. See Mass. H.B. No. 4350 (1976); Conn. Comm. Bill No. 5827 (1976). The Facility would have the power to mandate safety measures. After these were implemented by the manufacturer, the Facility would present the manufacturer's application for insurance to carriers participating in the plan of operation.

While this method offers some assurance that assigned risk insureds will follow safe practices with respect to products they currently manufacture, it does not address the problem of products already in the market place. As indicated in our discussion of useful life and statute of limitations remedies (see p. 20), it is these older products that have caused special difficulties for insurers in the process of setting product liability insurance rates. See also ISO Survey, Detailed Analysis at p. 52 (after twelve years from the time of manufacture 12 percent of the bodily injury claims had not yet occurred). Assuming that an estimate was made of this problem with regard to individual insureds, there would be delays before those applicants would obtain product liability insurance.

An alternative would be to ignore product liability prevention techniques, present and past, and make all manufacturers eligible for an assigned risk plan. While this approach would save time and administrative costs, it could seriously undermine the Task Force's goal of assuring that manufacturers use reasonable product liability prevention techniques.

Allocation of assignment

In the area of automobile liability insurance, risks vary based on the potential dangerousness of drivers; nevertheless, a pool is composed of a fairly homogeneous kind of risk. This is not true in the product liability situation. Products vary tremendously in the nature and extent of the hazard they may cause. There also is variance with regard to the number of products presently in the market place. Because of these disparities, our legal contractor concluded that it would be very difficult to have an assigned risk plan with "anything resembling apportionment reasonably calculated to distribute fairly the risk of loss." See Volume VII, Legal Study at p. 69.

Determining individual premium rates

Both our Legal and Insurance Studies suggest that an assigned risk plan would be unlikely to lower product liability insurance rates for individual insureds unless it received a subsidy from the Government or drew upon a subsidy from the voluntary insurance market. See Volume VII, Legal Study at p. 66; Insurance Study at p. IV-22. Moreover, if the Government were to fix maximum insurance rates for distinct amounts of coverages, it would have to engage in a process that would avoid the imposition of confiscatory rates imposed on participating companies. Both our Legal and Insurance Studies suggest that automobile assigned risk plans in some States have wrought political decisions in the ratemaking area where good drivers subsidize careless ones. See Insurance Study at IV-22; Volume VII, Legal Study at p. 40. These plans do not present a constructive analogy for the field of product liability.

Our Legal Study suggests that the only way the premium rate-setting problem might be mitigated would be if a reinsurance pool

backed up the initial assigned risk. As the Legal Study details, this method has been utilized in the current Michigan assigned risk automobile plan. See Volume VII, Legal Study at p. 42.

Inadequate coverage problems

Assuming that a product liability assigned risk plan might overcome the problems adverted to above, there would remain the problem of providing adequate coverage. In that regard, automobile assigned risk plans often are limited by the amounts set in individual State financial responsibility laws. Our Legal Study suggests that these amounts (\$10,000 to \$50,000 for one accident) may be inadequate in the area of product liability insurance. The Legal Study indicates that individual insurers, especially smaller companies, might be forced out of the voluntary market if they were assigned risks with relatively high coverage on the basis of their voluntary business. Our Legal Study suggests that the only way the problem of inadequate coverage could be avoided is if the assigned risk plan were coupled with a reinsurance mechanism. See Volume VII, Legal Study at pp. 67-68.

Summary and conclusions

The fact that classic assigned risk plans do not include a loss pooling mechanism, plus problems relating to eligibility of insureds and the allocation of assignments to insurers, seriously compromise the potential value of this remedy in the area of product liability.

Pooling Mechanisms

Introduction to the Problem

A basic concept underlying insurance is the pooling of risks. See W. Vance, Handbook of the Law of Insurance 1 (1951); R. Keeton, Basic Text on Insurance Law 2 (1971). As our insurance contractor noted, the philosophy that underlies the pooling concept is that there is "security in numbers." In that regard, an insurer is less vulnerable to the full impact presented by a high-risk policyholder if its exposure to loss can be effectively spread among many insurers in an efficient manner. See Insurance

Study at p. IV-27. According to our Insurance Study, the pooling arrangement is a simple extension of the key principle of insurance--risk sharing. Usually, the larger the pool, the more accurately loss costs can be estimated. On the other hand, our Insurance Study warns that pools of undesirable risks can result in massive losses for their members, either because the "proper premium" may not be charged due to the underwriters' inability to estimate it or because it is too high for the policyholder to pay.

Our insurance contractor summarized some of the potential advantages that could flow from broadening product liability risk pools. These include:

- Enabling the development of a highly skilled staff to underwrite and evaluate risks
- Concentrating statistical and claims information in one place
- Providing for more efficient spreading of risk as the financial resources of one or more companies can be made available for any one policyholder. See Insurance Study at p. IV-39.

All of this led the Task Force to suggest in its Briefing Report that "a national product liability insurance pool might provide a short-term solution to the insurance cost problems that have affected smaller manufacturers of industrial machinery and equipment and other 'high risk' products." Interagency Task Force on Product Liability Briefing Report, p. 23 (1/1/77).

In letters to the Task Force, both the American Insurance Association and the American Mutual Insurance Alliance questioned whether pooling would reduce insurance costs. See letter to the Task Force from William L. Martin, Vice President and General Counsel, American Insurance Association (1/14/76); letter to the Task Force from Andre Maisonpierre, Vice President, American Mutual Insurance Alliance (2/7/77). According to Mr. Maisonpierre, "all that a pool does . . . is to take total costs and spread them over total participants. It would not in any way affect the sum of the costs involved."

While this is true in the sense that a broader insurance pool, in and of itself, would not reduce the number or amount of judgments rendered against its insureds, the pool might reduce administrative costs and also diminish insurers' need to be conservative in product liability insurance ratemaking.

Unfortunately, the medical malpractice joint underwriting associations have not been in operation long enough to provide a firm picture as to whether pooling will reduce costs for individual insureds without subsidies flowing either from the Government or from the voluntary insurance market. Insurance company sources say that mandatory pools in the automobile and Worker Compensation areas have produced losses since 1968.²

On the other hand, our insurance contractor has noted that voluntary pooling in the aircraft industry led to a greater insurance capacity and a decline in aircraft manufacturers' insurance rates. Insurance Study at p. IV-38. Our Legal Study, which undertook an extensive study of the various forms of joint underwriting associations, considered them "a vehicle for solving the availability problem in products liability insurance." See Volume VII, Legal Study at p. 83. This assessment was not made on the basis of specific data, but on a comparative study of approximately 30 different remedial approaches in the area of product liability.

Perhaps one explanation of the apparent difference of opinion in regard to the effectiveness of pooling mechanisms is that the concept cannot be given a total evaluation in the abstract--legislatures need to consider specific pooling plans and then develop the plans which meet their requirements. Some of the broader guidelines and options will be developed herein. For more detailed consideration and citations, the reader should consult both our Insurance and Legal Studies.

Proposed Solutions to the Problem

Voluntary pooling mechanisms

Our Insurance Study strongly suggests that before the Government enacts any mandatory residual insurance mechanism, it should explore "the possibilities for special pooling

arrangements on a strictly voluntary basis." See Insurance Study at p. IV-37.

A voluntary insurance pool would require extensive cooperation among insurance companies. In that connection, our Insurance Study suggests that the companies that participated would probably have to place all business of a specified type within the pool. This feature would help avoid adverse risk selection. See Insurance Study at p. IV-39.

Our Insurance Study cites the United States Aircraft Insurance Group (USAIG) as a good example of a voluntary insurance pool. The USAIG, which began its operation in 1928, is composed of a group of property and casualty insurance companies. The Group is managed by United States Aviation Underwriters, Inc., a management company organized to operate the specialized insurance company. The USAIG has developed a skilled accident investigation process. Also, the company performs most of the functions of an insurer on behalf of its members. It issues policies in their name and is compensated by receiving a portion of the underwriting income. The practice of issuing policies in its members' name helps preserve competitive identity.

Our Insurance Study observed that USAIG produced good results: there is greater capacity available today than ever before, and aircraft insurance rates have steadily declined since the inception of this form of insurance. See Insurance Study at p. IV-39.

Our Insurance Study believed that voluntary product liability pools might be formed with the objective of providing general liability insurance, including product coverage, for smaller firms who have been unable to obtain coverage at an affordable price. See Insurance Study at p. IV-40.

Our Insurance Study suggested the following general format for a voluntary product liability pool. It would be composed of at least 10 of the top 15 underwriters of miscellaneous liability insurance. Qualifying businesses would be submitted to a central underwriter (within each member company) who would determine whether reasonable manufacturing standards were being followed. The central underwriter would also collect statistics and set

rates for each type of product in the pool. This underwriter would also contact his counterpart at each of the other member companies and arrange for facultative reinsurance where necessary. Each member would agree to take at least a prearranged portion of the risk, e.g., 10 percent. A slip containing basic risk facts and the proposed rate would be circulated by the initiating underwriter. Each designated member underwriter would initial the slip signifying agreement with the rate or suggesting a more appropriate rate. Our Insurance Study suggested that the majority of those reviewing the risk make a determination as to whether the central underwriter's recommendation should be followed.

Our Insurance Study suggested that the initiating insurer would bear all of these expenses of writing the business and would perform the required loss control, claim handling, and premium account services. If reinsurance were necessary, reinsurers would pay an overwriting commission to help offset the originating insurer's expenses.

An operating committee composed of the designated underwriters (or their backups) from each company would meet monthly to discuss specific risks, operating problems, and overall results. At that time, an accounting would be made of the performance of the pool as of an agreed upon cut-off date.

As our Insurance Study noted, the approach is a fundamentally voluntary industry effort. Therefore, it might not require legislation for its formulation. Nevertheless, the formation and operation of voluntary pools could probably be facilitated by government clarification as to how they might be formed and also by an indication about antitrust law requirements. For example, without government agreement, antitrust problems could arise if exclusive underwriting provisions were included in the pooling arrangement. See *The Pricing and Marketing of Insurance, A Report of the Department of Justice to the Task Group on Antitrust Immunities*, p. 214 (1977). If exemptions from potential antitrust violations were to be permitted, the Government would have to be assured of the need for the exemption. See Id. at p. viii.

In a letter to the Task Force, the American Mutual Insurance Alliance suggested the experience of the USAIG may be unique in character because that group dealt with a specialized, but relatively uniform hazard. On the other hand, in general, product liability faces "a wide diversity of hazards..." See letter to the Task Force from Andre Maisonpierre, Vice President of the AMIA (dated 2/7/77). Although the Task Force did not have an opportunity to explore whether voluntary insurance pools could definitely be utilized in other product lines, it seems reasonable to assume that certain product lines that have suffered insurance affordability problems (e.g., metal-working machinery and equipment, automobile tires) have enough characteristics in common so that voluntary pools might be established in these areas. We conclude that private insurers should give further consideration to this remedy and the appropriate government agencies should consider developing appropriate guidelines to assist in the formation of such pools.

Mandatory Pooling Mechanisms--Joint Underwriting Associations

Introduction

As has been indicated, the Task Force has not received information suggesting that product liability insurers are, at present, interested in forming voluntary product liability insurance pools. One reason for this may be that competition still exists among insurers for preferred product liability risks. See Memorandum to Task Force from Howard B. Clark, Special Assistant to the Administrator, Federal Insurance Administration, entitled, The Pooling Concept An Overview (10/28/76). This problem apparently existed in the area of automobile liability insurance in the past. In that context, it was observed by Benjamin R. Schenck, former Superintendent of Insurance of the New York State Insurance Department, that:

In insurance, however, there is one form of competition that seldom exists in the case of other products or services. That is selection competition--the ability of an insurer to affect its success, not only by the price or quality of its products, but by selecting its customers in a fashion that will give it an advantage over its rivals. Selection competition is a feature of the insurance economy which seems

to provide a ground for distinguishing insurance from other products and services and for fashioning for insurance a series of special rules unique to its problems and circumstances.

Selection competition should have few admirers. It is capable of totally denying to some people the opportunity to buy insurance at all in a day when many forms of insurance have become legal and practical necessities. Reprinted in Full Insurance Availability, p. 18-19 (Report of the Federal Insurance Administration, Department of Housing and Urban Development 1974).

Mandatory insurance pools, which have generally been enacted into law under the title "joint underwriting associations" (JUAs), overcome the problem referred to by Superintendent Schenck because they compel insurers to underwrite certain risks. Each member insurer is required to "participate" in the operations of the association by bearing a portion of the operating expenses and losses if sustained. According to our Legal Study, the association annually appoints, from a group of carriers that volunteered to act as distribution agents, one or more insurance companies to be its marketing representative. These designated companies, called "servicing carriers," generally accept applications, perform association underwriting functions, issue policy contracts, and pay claims arising from JUA-insured losses. See Volume VII, Legal Study at p. 80.

Although the JUA concept might have appealed to some as a method of "solving" the product liability problem, it is filled with a number of problems, some of the most important of which are discussed below. For more details, the reader should consult our Legal and Insurance Studies.

Application of Mandatory Pooling Mechanisms in the Area of Product Liability--Some Problems

Disruption factors

Our Insurance Study noted that any action taken in the area of product liability should minimize the disruption of normal relationships between insureds, agents or brokers, and insurance

companies. See Insurance Study at p. IV-32. The basic reason for this is that the writing of product liability insurance is often highly individualized. Moreover, it is usually combined with other coverages in a general comprehensive liability package. The "disruption" factor led our Insurance Study to conclude that a reinsurance mechanism (which would not interfere with the primary insurer-insured relationship) would be preferable to a joint underwriting association as a potential short-range solution to the product liability problem.

On the other hand, reinsurance mechanisms do not directly address the problems of primary insurance cost or availability: they can only be successful if there is an insurer who is willing to underwrite the primary risk. If primary insurers cede a very high proportion of their risks to a reinsurance mechanism, that mechanism is more a reinsurance facility in theory than in actual fact. The efficiency that could arise from facing the problem squarely by providing primary insurance from a joint underwriting association would be lost.

If a number of the leading product liability insurers acted as servicing carriers for the JUA, the amount of "disruption" that would be produced by the device might be minimized. See Volume VII, Legal Study at 82.

How Long Should the Pooling Mechanism Be In Operation?

Most joint underwriting associations have been created under State law in the area of medical malpractice. As our Legal Study observed, these statutes usually indicated that the JUA was only to exist on a temporary basis. The legislators intended them only as interim solutions until other remedial measures could be devised. Obviously, if the product liability problem could be resolved through reasonable measures that do not involve mandatory control over private insurers, such approaches would be preferred. The voluntary market could then handle product liability insurance.

Nevertheless, if a legislature does not have a specific idea as to what the permanent solutions are (at the time it creates the JUA), it must appreciate the fact that the device may have to be renewed or continued. Also, as our Legal Study details,

unless some other provision is made, the temporary nature of a JUA may require that a policy be written that would exclude the incurred but not reported category of claims. See Volume VII, Legal Study at 94; Kroll, "Claims-Made-Industry's Alternative: 'Pay As You Go' Product Liability Insurance," 1976 Ins. L.J. 63, 66.

With all of this in mind, we can make no recommendation as to how long mandatory insurance pools should be placed in operation. We can only suggest that unless other "long-range" solutions are well in mind at the time a JUA is formed, the device itself may endure and long-range solutions may not be found.

Should the pooling mechanism be the exclusive source of product liability insurance?

A major issue with regard to a product liability JUA is whether it would serve as an exclusive source of such insurance. Our Legal Study noted that medical malpractice JUAs differ on this issue.

The basic argument against exclusivity is that it may be desirable to retain a voluntary market for those manufacturers who are able to obtain product liability insurance. If other remedial measures were enacted that might reduce the product liability problem, this would allow the JUA to gradually phase out of operation while the voluntary market expanded.

On the other hand, if the JUA were nonexclusive, writers in the voluntary market could afford to be very selective in their choice of participants and reject all high-risk manufacturers. See Volume VII, Legal Study at p. 96. The net result would be to increase joint underwriting losses and possibly create deficits. See Note, The Florida Medical Malpractice Reform Act of 1976, 4 Fla. St. L. Rev. 50, 95-96 (1976).

Our Legal Study noted that at least one State has taken a precaution against this type of adverse risk selection in the area of medical malpractice by providing that if an Insurance Commissioner:

"After public hearing determines that substantial adverse risk selection...against the association has resulted, or will likely result, he may issue an order to insurers...that no original policy shall thereafter be issued or that renewal policy shall be issued unless the insurer will offer such insurance to a representative sample of rating classification, or both." See Volume VII, Legal Study at pp. 96-97, citing Calif. Ins. Code Sec. 11895(b) (Cum. Supp. 1976).

Our Legal Study concluded that if such a provision were inserted in a law creating a product liability JUA, it might allow a nonexclusive JUA to operate with some protection against the effect of adverse risk selection. See Volume VII, Legal Study at p. 97.

Which insurers should be required to be members of the pooling mechanism?

A major issue confronting legislators seeking to establish a JUA for product liability is which insurers will be required to be members. Our Insurance Study did not provide a detailed discussion of this issue. On the other hand, our Legal Study simply concluded that a product liability JUA would necessarily compel participation by requiring all insurers to write liability and casualty insurance in a State, whether or not they had previously sold product liability insurance. See Volume VII, Legal Study at p. 87.

The Legal Study observed that if this path were chosen and all member insurers were required to share in association losses, the JUA might be successfully challenged under the due process clause of some State constitutions. See Volume VII, Legal Study at p. 88, discussing Hartford Accident and Indemnity Company v. Ingram, 226 S.E.2d 498 (N.C. 1976). Again, our Legal Study merely made the assumption that insurance companies who do not write product liability insurance would have to be included in the pool.

As Chapter VI indicates, many companies write product liability insurance. The product liability problem has not, to date, caused large numbers of insurance companies to abandon the

product liability insurance market totally. Thus, even if a JUA is limited to those who write product liability insurance (either monoline or included under CGL), there may be a sufficient risk spreading among those companies to make the association achieve the benefits of mandatory pooling. It should be noted that all companies do not operate in each State. Nevertheless, this report has suggested that State-level JUAs in the area of product liability insurance may not be effective. See p. 115. In a national JUA, all companies would be available to participate in the pool. If a product liability JUA were to be enacted at a State level, it is suggested that very careful consideration be given to the issue of whether it is really necessary to include insurers who do not write product liability insurance.

How should the assessment basis for the pooling mechanism be determined?

A basic issue with respect to JUAs focuses on the initial assessment basis for the formation of a premium "pool." At least one insurance trade association contends that mandatory pooling is not a viable interim solution to the product liability problem, because product liability insurance should be rated on an individual analysis of the hazards relating to a particular risk. Our Insurance Study does show that certain products have been grouped together for ratemaking purposes in a limited number of situations. See Insurance Study at I-22. It would seem that product liability experience information that has been reported to the Insurance Services Office may also be of assistance in determining the scope of the product liability pools. See Insurance Study at p. II-9 (describing the product liability information that is reported to ISO). Nevertheless, it is probable that under a product liability JUA, manufacturers of low-risk products will, to some extent, be supporting manufacturers of products that have a higher risk of causing injury. Moreover, legislators may be tempted to broaden the pool beyond product liability and include premiums from other liability insurance lines. As the pool is broadened to include risks that are not homogeneous, there would seem to be a greater need for a very strong policy basis for the creation of the JUA. See the discussion at p. 118. In that regard, information supplied to the Task Force by the AMIA suggests that using low-risk insureds to support high-risk insureds in a JUA will place a

severe strain on the ability of insurers to write liability policies of any kind in the voluntary market and may cause some companies to leave the market altogether.

How should losses be recouped?

Closely related to the problem of the JUA assessment basis is the problem of how JUAs' losses will be recouped. If the NAIC Medical Malpractice Model Joint Underwriting Association legislation were followed in the area of product liability, member insurers of the association would initially share in any deficit in the proportion that the net direct premiums of such member (excluding that portion of premiums attributable to the operation of the association) written during the previous calendar year bears to the aggregate net premiums written in the State by all members of the Association. See Volume VII, Legal Study at p. 91.

Recoupment is achieved by a number of means. First, the legislation provides for a nonprofit retrospective rating plan under which the final premium for the group will be equal to the associations' actual expenses. Second, a stabilization reserve fund is created at the time premiums are collected. This is used to pay off the group's retrospective rating charges. Finally, the legislation provides that if stabilization reserve funds are exhausted, the Commissioner of Insurance is to authorize the member insurers of the association to recoup their share of the deficit by one of two procedures: (a) applying a maximum surcharge of 2 percent of annual premiums on future policies affording the kinds of insurance which form the basis for their participation in the association; or (b) deducting their share of the deficit from past or future premium taxes due to the State.

Both of these measures will create a subsidy for the product liability line, supported either by other insurance risks or by the State itself. Obviously, very strong policy reasons such as those discussed at p. 123 are necessary to support such a procedure.

Our Legal Study concluded that it might be necessary to include recoupment procedures in the JUA to ensure its

constitutionality under State constitutions. See Volume VII, Legal Study at p. 92.

Other major issues concerning mandatory product liability pooling mechanisms

Some other major issues that must be determined if a mandatory product liability insurance pool is to be enacted into law are discussed elsewhere in this chapter. First, the decision must be made as to whether it would accompany modifications in the tort law system discussed at pages 1-84. Also, a decision must be made as to whether the system will include mechanisms that will review whether insureds utilize sound product liability prevention techniques. See p. 175. Finally, a decision must be made as to whether a mandatory pool should be implemented at the State or Federal level. Our discussion of that matter appears at p. 115.

Summary and conclusions

We conclude that the basic concept of broadening product liability pools deserves very careful consideration by legislators interested in the product liability problem. While we have no empirical evidence that it would reduce the overall cost of product liability insurance, basic insurance principles suggest that it may lower rates for individual insureds. It would seem worthwhile to explore whether voluntary pooling is a practicable product liability remedy before utilizing a mandatory product liability pool. As indicated at p. 134, we conclude that private insurers give further consideration to the formation of voluntary pools and that the appropriate government agencies consider guideline legislation to assist in the formation of such pools might be facilitated.

Mandatory pooling raises many difficult issues which the Task Force could only begin to explore. The resistance of some insurers toward the pooling concept and the lack of specific data on Medical Malpractice Joint Underwriting Associations made a complete evaluation of this remedy difficult for the Task Force.

Introduction to the Problem

For reasons stated at p. 115, insurance mechanism alterations that might provide a temporary relief for the product liability problem would be most effective if they were implemented at the federal as compared to the state level. If the Federal Government is to enter into the insurance market directly, our Legal Study suggests that it is premature to create a direct product liability insurance program. See Volume VII, Legal Study at p. 134. As the study details, existing models illustrate that direct Federal insurance has generally been an expensive remedy for major national insurance availability problems.

Direct Federal Insurance

Our Legal Study noted that the problem areas where direct Federal insurance was used in the past, such as flood and crime insurance, were ones that would take a great deal of time to resolve. The unavailability problem in the area of flood insurance could only be alleviated by major changes in the environment. The unavailability problem in the crime insurance area could only be alleviated if inner city high crime areas were made safe. Obviously, this was (and is) not a short-term proposition.

On the other hand, the product liability problem is, in substantial part, created by a combination of faulty insurance mechanisms, product defects, and problems in the tort-litigation system. While these problems will be difficult to resolve, they are more subject to legislative change than matters that led to the creation of crime and flood insurance.

Our Legal Study also noted that if the Federal Government were to enter the product liability market as a direct insurer, obtaining the rate-setting experience necessary for proper underwriting would require a major effort.

On the other hand, the private property-casualty insurance industry, with its general liability underwriting experience and its existing number of underwriters would be, at the primary

level, a more efficient rate-setting mechanism than a new Federal agency. See Volume VII, Legal Study at p. 135.

Finally, a direct Federal product liability insurance program would commit the Federal Government to a single approach in an area now managed by private industry and the States. While it seems clear that Federal solutions may be necessary in the product liability area, both our Insurance and Legal Studies suggest that it may be preferable to rely on a method that would integrate existing systems, (such as a Federal reinsurance program), rather than rely on direct Federal insurance. See Volume VII, Legal Study at p. 136, Insurance Study at p. IV-26. For a detailed consideration of direct Federal insurance under the Flood Insurance Program, the Federal Crime Insurance Program, the Nuclear Energy Liability Insurance Program (the Price-Anderson Act) and the Federal Crop Insurance Program, see Volume VII, Legal Study at p. 131. Our insurance contractor's discussion of direct Federal insurance programs appears at pp. IV-24 (Crime Insurance) and IV-29 (National Flood Insurance) of our Insurance Study.

It has been suggested to the Task Force that the insurance approach taken by the Federal Government in the National Swine Flu Immunization Program might be an apt analogy for industries suffering particularly severe liability insurance affordability problems. See Act of August 12, 1976, Pub. L. 94-380. This approach was not, strictly speaking, a Federal insurance program. The legislation provided that an action against the United States under the Federal Tort Claims Act would be the exclusive remedy for "personal injury or death arising out of the administration of the Swine Flu Vaccine under the Swine Flu program and based upon the act or omission of a program participants." P.L. 94-30, supra. The United States reserved the right to recover for all or any portion of the damage it paid which would be attributable to negligent acts or omissions on the part of any program participant. Therefore, the Government was shielding manufacturers from strict liability claims;³ it was not acting as an insurer.

The program was created because manufacturers producing the vaccine found that they were unable to obtain appropriate liability insurance in the private insurance sector. Thus, there

was some analogy to the present situation for some manufacturers in the capital goods industry who are experiencing insurance unavailability problems. This would appear, however, to be the extent of the analogy.

In the Swine Flu situation, the President made the judgment that the distribution of the vaccine was necessary for the health and welfare of American citizens. In that regard, members of Congress who supported the legislation repeatedly stressed that the Government's assumption of liability should not be regarded as a precedent. See 122 Cong. Rec. 14109 (daily ed. Aug. 10, 1976). If it were utilized as a precedent, it would allow a private manufacturer operating for profit to externalize a portion of its risk-creating activity.

It is our judgment that this consequence could only be justified in the rare situation when there was a special public need for a product and it only could be made available if the Government did assume a portion of the manufacturer's tort liability. This might occur, for example, with some unavoidably unsafe pharmaceuticals. See p. 29. In such a situation, the Government might have the right to regulate the amount of profit the private enterprise enjoyed under the cover of government protection from tort liability.

Federal Reinsurance

The Interagency Task Force Briefing Report suggested that a Federal standby reinsurance mechanism should be given further consideration as a short-range product liability remedy if the product liability unavailability/unaffordability situation becomes more serious in the future. Since it is our judgment that Federal funds would have to be used to subsidize this mechanism (or at least put at risk), strong public policy reasons would have to support the implementation of such a mechanism. Since public funds may be utilized with any residual insurance market mechanism, we have discussed that topic separately at p. 118.

Since the publication of our Briefing Report, a bill authorizing the furnishing of reinsurance to product liability insurers of small business concerns that otherwise may not be

able to obtain such insurance on reasonable terms has been introduced in the United States Senate. See S.527, 95th Cong. 1st Session (1977). Initial hearings have already been held on that measure. The Task Force's views in regard to S.527 (as of March 9, 1977) can be found in the records of these hearings. Here we will present some of the more general arguments in favor of, and against, Federal reinsurance as well as some of the problems that such a mechanism must solve. Some potential answers to those problems appear in both our Insurance and Legal Studies--these will be discussed below.

Reinsurance--what is it?

Chapter V discusses the nature of product liability reinsurance today in the private marketplace. See p. 41. Reinsurance is defined as insurance purchased by an insurance company to transfer a portion of its liability to other insurers. In the private market, the policyholder has no part in the reinsurance transaction and usually no knowledge of it. If a policyholder has a loss, the insurer that issued the policy pays the claim and looks to the reinsurer for recovery of the portion the reinsurer has to pay.

The basic process suggests why our Insurance Study favored reinsurance over other residual market mechanisms such as mandatory pooling and assigned risk plans. Reinsurance has the potential of minimizing the disruption of normal relationships between insurers, agents or brokers, and insurance companies. See Insurance Study at p. IV-35. Whether this advantage can be maintained once the Federal Government becomes the insurer is a matter to be considered in the course of the development of legislation.

As Chapter V suggests, liability insurers use two types of reinsurance on their portion of the policyholder insurance -- program--facultative and treaty. Facultative reinsurance is written on a risk-by-risk basis--i.e., each risk is individually reinsured under a specific agreement. On the other hand, treaty insurance provides for the automatic transfer of a portion of the insured's business to other insurers under a prearranged agreement. It has been generally assumed that a Federal reinsurance mechanism would be of the facultative type. An

insurer would arrange facultative reinsurance for the portion of a particular risk it deemed in excess of its own capacity.

Can federal reinsurance ease product liability rates for individual insureds?

Our Insurance Study's review of 3,000 underwriting files showed that only 5 percent had been reinsured on a facultative basis. See Insurance Study at p. I-18. Most of these transactions involved large, rather than small, businesses. Id. This suggests that if the Federal government were to enter into the reinsurance market and set rates in accordance with existing reinsurance premiums, it might have little effect in lowering product liability insurance for individual small business insureds.

It should be noted that the Federal government might be able to provide lower reinsurance rates--without subsidy--because it would be free from the need to make a profit or pay Federal income taxes. Also, it probably would not need to set aside funds in an incurred but not reported claim reserve. The point that appears indisputable is that no matter how it is achieved (with subsidy or without), the Federal reinsurance mechanism would have to provide a rate below the existing reinsurance market to have a substantial effect on easing the product liability problem for small businesses.

Even if Federal reinsurance rates were lower than rates in the existing market, this should not guarantee that small businesses would be able to obtain product liability insurance at affordable rates. In that regard, it should be noted that reinsurance is dependent on the willingness and ability of a primary insurer to write product liability insurance. It is uncertain whether primary insurers will continue to do this--especially if the product liability problem worsens.

Only part of the "enticement" encompassed in a Federal reinsurance mechanisms comes from lower Federal reinsurance rates. It may also stem from the amount of risk a primary insurer will be able to cede to the reinsurance mechanisms. Since the product liability picture is a changing one, the agency authorized to administer a Federal reinsurance mechanism must

have some flexibility with respect to this matter. It should be realized that when the Federal government becomes more willing to absorb higher risks as a reinsurer, it comes increasingly closer to being a de facto primary insurer. The primary insurers would then become a mere conduit for the Federal government's reinsurance mechanism.

Assuming that the Federal reinsurance mechanism could attract a sufficient number of primary insurers to end the product liability insurance availability problem for responsible small businesses, it is essential that the legislative framework assure that the savings generated by the Federal reinsurance mechanism are passed along to the individual insureds. To do otherwise would thwart the basic purpose of the mechanism.

In sum, unless Federal reinsurance were converted into a de facto primary insurance mechanism, it would not guarantee primary insurance availability. Nevertheless, our Insurance Study suggested that even if it operated as a true reinsurance facility it would help ease the availability problem for small and medium-sized manufacturers. The basic reason for this is that the mechanism would reduce the burden of uncertainty for primary writers by allowing them to limit their liability. See Insurance Study at p. IV-34. The industry comprehensive telephone survey and industry association surveys (see p. III-3) frequency has been growing. Our insurance contractor believed that claim severity is also an important source of concern to insurance underwriters. See Insurance Study at p. IV-1. Reinsurance can help protect primary insureds against claim severity.

Is Federal reinsurance a long- or short-range remedy?

Aside from the fact that Federal reinsurance would not guarantee availability, even for a responsible risk, there are other problems that a Federal reinsurance mechanism must address. One of the most important is whether it is a long- or short-range remedy. Our Insurance Study suggested that Federal reinsurance should be a short-range remedy. Nevertheless, the insurance contractor assumed that until improved loss prevention techniques and tort modifications help control the overall cost of product liability insurance (so that it can be handled entirely within the private voluntary market), the product liability problem

would not be resolved. See Insurance Study at p. IV-35. Our Legal Study observed that unless reinsurance "is to become a hidden subsidy for a particular group of insureds, [its] success...hinges upon a return to normalcy through the elimination of the causes of [insurance] losses as well as the fear of disastrous losses." See Volume VII, Legal Study at p. 199.

On the other hand, some evidence compiled by our Legal Study in its survey of cases at the appellate level and at the trial level in the United States District Courts and the Courts of the State of Connecticut suggest that insurance companies' concern about losses, rather than actual losses, may have caused the rise in product liability insurance rates. See Volume VII, Legal Study at p. 132 (suggesting that liquidity problems having nothing to do with the tort system may have been the cause). A well-managed unsubsidized Federal reinsurance mechanism might reveal whether this suggestion is a valid one.

At this point in time, it is probable that proposed Federal reinsurance legislation will call for a short-term program. See S.527 cited at p. 144. This was also the case with the Federal Urban Property Protection and Reinsurance Act of 1968. Nevertheless, assuming the private insurance industry is correct in its estimate of the need to raise product liability premiums (or in its refusals to write lower premiums), the need to have a Federal reinsurance mechanism will continue.

One of the technical problems in designing a short-range Federal reinsurance mechanism is to handle the matter of claims that may continue after the reinsurance mechanism is scheduled to terminate. Our Legal Study details a method whereby this could be done: reinsurance would be provided on a basis that would exclude the category of incurred but not reported claims. See Volume VII, Legal Study at p. 94 (discussing a similar problem with joint underwriting associations).

Although the utilization of this type of "claims made" approach would provide a clean "bail out" for a Federal reinsurance mechanism, it may create a situation where claims incurred but not reported prior to the "bail out" date are left uncovered by any liability insurance once the reinsurance

mechanism is terminated. See Chapter V at p. 5-7. In that connection, preliminary data from ISO indicate that 4.1 percent of claims are not reported until after 24 months from the time of injury. These incurred but not reported claims represent 13.5 percent of bodily injury payments. See ISO Detailed Analysis at p. 47. Obviously, if a claims made "bail out" approach is utilized, legislators should be certain that insurance mechanisms available after the Federal insurance mechanism terminates cover incurred but not reported claims. Perhaps this is a matter that could be determined the final year of the insurance mechanism's existence. See also our discussion of this general topic under JUAs at p. 110.

Who should be eligible to participate in the reinsurance mechanism?

Unfortunately, our Legal and Insurance Studies do not provide details as to who should be eligible to participate in the Federal reinsurance mechanism. Our Insurance Study assumes that private reinsurers would be the main participants. This assumption would seem sound if the Federal reinsurer could be assured that Federal reinsurance dollars were being used to extend availability and reduce unaffordability of product liability insurance. As has been indicated at p. 147, primary insurers could benefit from Federal reinsurance without extending availability or reducing product liability premium rates.

For this reason, some have suggested that Federal reinsurance should only be made available to State residual market mechanisms. See Hearings before the Senate Small Business Committee, 95th Cong. 1st. Session, March 10, 1977 (Testimony of 1st Spokesman for the Federal Insurance Administration). As our Legal Study indicates, this would have the advantage of placing primary enforcement responsibility with the State Insurance Commissioners who are closest to the problems that vary from state to state. It would also allow the Federal financial resources to assist state JUAs--this might overcome problems of solvency for these mechanisms. Finally, Federal legislation could require standards of uniformity among state JUAs as it did with State FAIR (Fair Access to Insurance Requirements) Plans and as it would have with State arbitration mechanisms that had been proposed under Federal medical malpractice legislation. See

Volume VII, Legal Study at p. 209. On the other hand, it seems unlikely that all of the problems that would flow from implementing product liability JUAs at the State (rather than the Federal) level could be overcome by Federal reinsurance. See p. 115. Again, product liability differs from medical malpractice and property insurance (addressed by FAIR Plans) because of its intense interstate nature.

All of this suggests that primary insurers should be the principal participants in a Federal reinsurance program. Also, assuming that a captive insurance company complied with appropriate reserve requirements (see p. 161), it should also have the benefit of Federal reinsurance. The most difficult problem concerns a party who attempts to self-insure up to a certain level and wishes to "cede" part of the risk to a Federal reinsurance mechanism. Unfortunately, unless definitions were turned upside down providing "reinsurance" in that situation, it would turn the Federal reinsurance mechanism into a primary insurance mechanism. The situation illustrates one of the basic shortcomings of reinsurance--it does not guarantee availability or affordability for individual insureds.

Other major issues concerning product liability reinsurance mechanisms

There are a number of other major issues relevant to reinsurance that are discussed in other portions of this chapter. The issue of whether reinsurance should be implemented at the State or Federal level is discussed at p. 115. The potential tort law reforms that might accompany the implementation of a Federal reinsurance program are discussed in Sections II, III, and IV of this chapter.

The problem concerning the need and method whereby the mechanism would include a procedure that assured that individual insureds utilized product liability techniques is discussed at p. 175. See also the discussion of that topic in connection with Assigned Risk Plans at p. 128. This chapter's discussions in connection with mandatory pooling mechanisms on the topics of whether the device should be exclusive, p. 138, how the assessment base should be determined, p. 140, and how the losses should be

recouped, p. 141, are also relevant in the area of Federal reinsurance.

Discussions of other more technical issues concerning Federal reinsurance may be found in both our Legal and Insurance Studies. See Volume VII, Legal Study at p. 184, Insurance Study at p. IV-27.

Summary and Conclusions

Taking all matters into consideration, there does not appear to be a need for a direct Federal product liability insurance program at this time. Prior direct Federal insurance programs were prompted by long-term insurance unavailability problems. This is not the situation in the area of product liability. At this time it would appear better to attack the causes of the overall product liability problem -- faulty insurance mechanisms, product defects and uncertainties in the tort-litigation system than to establish a program where the Federal government was marketing and setting rates in the area of product liability insurance. Nevertheless, it should be noted again that the product liability situation is a fluid one and the need could arise in the future.

The National Swine Flu Immunization Program does not appear to be an apt analogy for industries suffering particularly severe insurance affordability problems. To adopt this type of program in the area of product liability would allow private manufacturers operating for profit to externalize portions of their risk-creating activities. This type of program could only be justified where there was a special public need for a product and it could only be made available if the government assumed a portion of the manufacturer's tort liability. This could possibly occur in the future with certain unavoidably unsafe pharmaceuticals or other products, but it is a matter that deserves very careful exploration and it is a remedy of last resort.

We conclude that a Federal reinsurance program is preferable to direct Federal insurance -- reinsurance should involve less government activity in an area currently being handled by the private insurance industry. Since Federal funds would have to be

used to subsidize this mechanism (or at least be put at risk), strong policy reasons would have to support the implementation of such a program. See p. 115.

Even if Federal reinsurance rates were lower than rates in the existing market, this would not guarantee that businesses would be able to obtain product liability insurance at affordable rates. A reinsurance program is dependent on the willingness and ability of primary insurers to write product liability insurance. Nevertheless, there is some evidence that primary insurers are concerned about claim severity (as compared to the sheer number of claims). To the extent that this is true, product liability insurers would be inclined to utilize a Federal reinsurance mechanism.

While Federal reinsurance has been assumed by many to be a short-range remedy, the need for it will exist as long as the basic causes of the product liability problem remain to be addressed. Assuming that these causes are addressed and that the mechanism is adopted as a short-range remedy, it still would have to assure that incurred but not reported claims are covered after the basic mechanism terminates.

Primary insurers should be the principal participants in a Federal reinsurance program. Captive insurance companies that comply with appropriate reserve requirements should also benefit from it. Unfortunately, a reinsurance mechanism cannot help a party who wishes to self-insure up to a certain level and wishes to "cede" part of the risk to a Federal reinsurance mechanism. This illustrates one of the basic shortcomings of reinsurance -- it does not guarantee availability or affordability for all who are interested in obtaining product liability insurance.

A reinsurance mechanism should address the issue of whether the device should be exclusive, how the assessment base should be determined and how losses should be recouped. The report provides information for interested parties with respect to these issues. The mechanism must also be a device that will assure that its ultimate beneficiaries utilize reasonable product liability prevention techniques. Our report also analyzes this issue. See p. 175.

CAPTIVE INSURANCE COMPANIES

Introduction to the Problem

The Interagency Task Force on Product Liability's Briefing Report identified captive product liability insurance companies as a residual insurance mechanism that might increase the availability of product liability insurance or lower its cost for some insureds. The report focused on captive product liability insurance companies that would be chartered at the Federal level. The Task Force assumed that captive insurance companies could provide benefits for large manufacturers and also for small manufacturers who were members of trade associations that had the resources and skills to form captives. See Briefing Report at p. 23. Little new information has come to the attention of the Task Force about these assumptions.

A captive insurance company is generally defined as a company organized by a firm or group of firms to insure the risks of its organizers. A pure captive is a wholly owned subsidiary organized by a company to insure only the risks of its parent and its parent affiliates. A hybrid form of captive insurance company, which may be useful in the area of product liability insurance problems, is the trade association or industry captive which is owned by a number of firms in the same industry. The purpose of the trade association captive is to insure specific risk exposures common to its owners.⁴ The third type of captive insurance company is the wholly owned subsidiary which not only insures its parent, but also third parties. Allstate Insurance Company, a subsidiary of Sears, Roebuck and Company, is an example of this type of captive.

Our discussion here will focus on the first two types of captive insurance companies. As pages 160-167 will detail, there are two basic ways in which legal modifications could encourage such captives. First, State or (potential) Federal insurance regulators may allow captives to avoid certain requirements that apply to standard insurance companies. Second, captives may be given favorable tax treatment. For example, Federal tax law may permit the parent and the captive to have the benefits each would reap if they were wholly independent companies dealing at arm's length. After the advantages that may be obtained from captives

are considered, this report will discuss the scope and implications of legal changes that may encourage their formation.

Analysis of the Potential Advantages of Captive Insurance Companies

It has been suggested to the Task Force that modifications in the law that would encourage the formulation of captive insurance companies should be given serious consideration because of certain advantages that may arise from the use of captives. These purported advantages include the following:

1. They will operate more efficiently than standard insurance companies--this will reduce insurance costs for the parent.
2. They will encourage the parent to utilize better loss prevention plans--this will reduce insurance costs for the parent and protect consumers.
3. They will give the parent more control over litigation and decisions as to when to settle--this will reduce insurance costs for the parent.
4. They will allow the parent to deal directly in the reinsurance market--this will reduce insurance costs for the parent.

Of course, all of these alleged advantages may not hold true in fact. Unfortunately, we have no empirical data as to how well captive insurance companies work in the area of product liability. Therefore, any conclusions must be based on reasonably analogous captive insurance operations and on a general analysis of the remedy. With that framework in mind, we will consider the purported advantages of captives.

Captives will operate more efficiently than standard insurance companies--this will reduce insurance costs for the parent.

There are several ways in which a captive may meet the insurance needs of its parent more efficiently than a standard

insurance company. First, a captive insurance company can tailor its policies to meet the specific needs of its parent. According to our Legal Study, "[s]ince the corporate management has the superior understanding of the inherent hazards of the industry, it can work in conjunction with insurance experts of the same corporation to develop a better contract for the parent than could an outside insurer." See Volume VII, Legal Study at p. 244.

Second, captives may be able to provide coverage for risks that conventional insurers are not willing to handle (Id. at 243); however, insuring "uninsurable" risks may not reduce the risk exposure of the parent due to the likely unavailability of reinsurance for such risks. Third, cost savings for the parent should result because the captive need not make a profit on the transaction. Finally, the lower claims adjustment expenses and overhead of captives formed by companies with good claims histories should be reflected in lower premiums.

On the other hand, the initial expenses of incorporating and capitalizing a captive insurance company would usually be more substantial than the product liability premiums. For example, the minimum capitalization for captive insurance companies organized in Colorado is \$400,000 and an accumulated surplus of at least \$350,000. See Volume VII, Legal Study at p. 242. It has been reported, however, that the State Insurance Commission requires, in practice, a minimum of \$1,000,000. Business Insurance, p. 7 (2/21/77). Moreover, the fixed overhead associated with operating a bona fide insurance company can be considerable.⁵ A captive usually must maintain a separate office and staff, and develop an expertise in a field which, for most companies, is very foreign to their primary line of business.

These costs would prevent most small companies from utilizing captives. It has been suggested to the Task Force, however, that small companies acting through a trade association could generate the funds necessary to capitalize a captive. Such captives are permitted in at least three jurisdictions: Bermuda, the Bahamas, and Colorado. See Volume VII, Legal Study at p. 236. Furthermore, while many trade associations may not have the expertise necessary to manage a captive, several companies offer management services for captive insurance companies.

Nevertheless, the costs associated with the utilization of these management firms would reintroduce the need for profit that captives are supposed to eliminate. Also, if a captive were run by an outside management firm, this might diminish the technical specialization which captives allegedly provide.

Ultimately, the economic viability of any proposed trade association captive may depend, inter alia, upon whether or not the present insurance costs of its members are justified by their claims experience, past and projected. Some argue that the principle of adverse selection may doom such captives from the start. They foresee that firms which are unable to obtain affordable product liability insurance in the private market and therefore need to avail themselves of a trade association captive may not have very good risk records. They also may have inadequate resources to contribute to such a captive.

On the other hand, we have received numerous letters from companies who allege that their insurance costs have increased dramatically although they have had no claims filed against them. Companies in the same industry which have good claim records might band together to form captives and thereby avoid the allegedly overpriced private insurance markets. Our Legal Study examined such a captive which was formed to provide medical malpractice insurance for a group of eleven Harvard-affiliated hospitals. The latter had concluded that their malpractice premiums were grossly disproportionate to their claims experience. Volume VII, Legal Study at pp. 238-40.

In that regard, some smaller companies have not been experience-rated--insurers claim they are too small to provide the kind of predictability that is necessary for experience rating. See Industry Study VII, pp. 14-15. The captive insurance company might provide a test as to whether this assertion is a valid one.

Another major factor that may cause an increase rather than a decrease in insurance costs through captives is that the mechanism, by definition, assures only the risk of its parent. At this level, pooling of risks only occurs within the corporate family--no other organization's capital is "at risk." As the purpose of insurance is to provide financial security through

risk sharing among many participants, "captive" risk funding mechanisms have significant limitations. Of course, pooling may occur if a large trade association pools its members' product liability risks.

In sum, we are uncertain whether captives would promote more efficient operating costs for the companies that are most likely to have the greatest need to utilize this remedy.

Captives may encourage the parent corporation to utilize better loss prevention plans--this will reduce insurance costs for the parent and protect consumers.

Because captives are more likely to utilize experience rating (for small businesses) than outside insurers, companies insured by captives may perceive a more direct correlation between their insurance costs and their claims experience. This may, in turn, prompt their insureds to utilize better product liability prevention systems. See Industry Study VI, p. 34.

Of course, loss prevention activity is based on what is economically feasible for a given company, and the motivation to engage in it (or not) may be prompted by exposures under the tort system. These economic considerations operate whether a company is insured by a captive or by a standard insurer, or whether a company is self-insured or goes without insurance.

In addition to possibly increasing a company's motivation to implement product liability prevention techniques, a captive may also be better equipped than a standard insurer to provide advice about such techniques. Our Insurance Study showed that while more insurers are providing guidance of this type, it is often very general in nature. This is especially true with respect to smaller insureds. See Insurance Study at pp. 1-44. A captive insurer should have the knowledge and skill to provide specific product liability prevention advice. Moreover, experience from the area of medical malpractice suggests that a trade association captive may be more demanding on its "parent insureds" regarding product safety than standard insurance companies. Cf. Business Week, p. 38 (3/21/77) (discussing so-called "bed-pan" mutuals--insurance companies formed by physicians).

Captives will give the parent company more control over litigation and decisions as to when to settle--this will reduce insurance costs for the parent.

It has been suggested to the Task Force that captives permit the parent insured more control over litigation and decisions as to when to settle. A prudent exercise of this control may reduce overall insurance costs. Thus, it has been alleged that a captive can exercise a more accurate judgment than insurers as to when to settle a case. In that connection, it has been argued that in some industries "outside" insurers are too willing to settle cases. It has also been noted that sometimes insurance companies fail to settle a case that should be settled within policy limits. The net result of this error in judgment is a jury verdict that is both greater than the amount of the proposed settlement and over policy limits. Assuming that the insurer acted in good faith (or in some states "was not negligent"), the insured must then pay for the excess out of its own capital.

Again, these are matters in which some manufacturers have allegedly had personal experience--we cannot generalize about them based on data. There is logic to these assertions, however, and for that reason they have been presented herein.

Captives may be able to deal directly in the reinsurance market--this will reduce insurance costs for the parent.

The potential cost savings referred to in the previous sections may be obtained by companies that merely self-insure. Nevertheless, companies that self-insure may find it difficult to purchase excess layers over self-insurance. This is because carriers lack faith in the claims handling of self-insureds, and "without a solid primary underwriting company, they have no reliable underlying premium against which to factor their excess layer percentage charges." See J. Hanker, "Switch to Self-Cover Should Be Eyed Closely," The Journal of Commerce p. 3A (4/25/77) (Mr. Hanker is President of the NN Risk Management Services, Inc.).

According to our Insurance Study, self-insureds may also be unable to obtain reinsurance. Captives, on the other hand, can reduce their parent companies' insurance expenses because

captives may be able to obtain both excess insurance and reinsurance. In that connection, our Insurance Study states that "[r]einsurance is often lower cost insurance, as reinsurers pay a commission of 10 to 20 percent to the primary insurer. Also, they will frequently share their profits with the captive via 'contingent commission' arrangements." See Insurance Study at pp. 4-42.

It is not clear, however, that such reinsurance savings would offset the overhead costs of a small manufacturers' captive. More importantly, since the captive may be dealing with the risks of companies that have been unable to obtain primary insurance in the voluntary market at an affordable rate, reinsurers (or excess insurers) may decline to provide coverage. This, again, is one of the uncertainties regarding captives.

Benefits of Captives--A Summary

Large companies (\$100 million plus in gross sales) with very high product liability insurance rates may be able to obtain long-range cost savings by developing a captive. It is far less certain that smaller companies utilizing captives would benefit from such savings. Nevertheless, the potential exists for some industries if enough small businesses can join together to form the captive.⁷ For that reason we have given consideration to potential legal modifications that would facilitate the formation of captives.

Proposed Solutions to the Problem

There are two basic ways the law might encourage the formation of captives. The first is to modify insurance regulatory law, imposing less stringent requirements on captives than would be imposed on standard insurance companies. The second method focuses on modification in both state and federal tax laws so as to favor the formation of captives. While the two topics are interrelated, for purposes of clarity we will deal with them separately herein.

Modifying insurance regulations for captives

A private insurance company must adhere to a number of state financial operating regulations that have evolved to protect policyholders. It has been suggested to the Task Force that a number of these requirements are not necessary when the insurer's sole policyholder is its parent organization. See Insurance Study at pp. 4-42. According to our Legal Study, offshore captives are especially popular under some circumstances because of these relaxed requirements. For example, the minimum capital required by Bermuda law is only \$120,000. Also, there are few restrictions on a Bermuda captive's investments. See Volume VII, Legal Study at pp. 237, 245.

While it could be argued that a parent can be said to assume the risk when it undercapitalizes a captive insurance company, there are at least two reasons to require sound financial underpinning for such devices. First, in regard to trade associations' captives, the insureds may not be intimately familiar with the parent organization. The relationship of trade association members to their captive insurance company may be similar to that of a policyholder toward a private insurance company--the members expect solid protection from their captive. Second, members of the public who are injured by products could be adversely affected if captive insurance capital requirements are insufficient.

The recently enacted Colorado Captive Insurance Company Act (which as of July 1, 1977 was the only state law on the specific subject) provides the only working model of a state law concerning captive insurance companies. For that reason, it may be useful to discuss some of its provisions.

The Colorado Act protects a captive from at least one potential drain of its funds by excusing the captive from participation in any mandatory pools, plans, or guarantee funds. See Colo. Rev. Stat. 10-6-127 (1973). Also, the Act allows a parent to meet statutory capital, surplus and deposit requirements by use of approved irrevocable letter of credit. See Colo. Rev. Stat. 10-6-116 (2) (1973).

The Colorado Act attempts to ensure that only corporations having a legitimate insurance reason for forming a captive can do so under the Act. In that regard, there is a statutory requirement that an applicant for a captive show that insurance coverage was not otherwise available at a reasonable rate. See Colo. Rev. Stat. 10-6-105 (2) (a) & (b). This, of course, restricts the use of captives to situations involving severe availability or affordability problems--the restriction prohibits the general use of captives as a device to reduce insurance costs. If trade associations are to be encouraged to form captives, this restriction may be too severe. In fact, allowing a wider scope of member companies would increase the proportion of better risks in the pool, thus increasing the captive's potential for success.

The Act requires captives to file rates and policy forms with the state insurance division for prior approval. This condition applies only to captives; standard insurance companies are not subject to prior approval of rates under the "open competition" rating laws of Colorado. See Colo. Rev. Stat. 10-6-123 & 125 (1973). This requirement may be necessary to provide continuing scrutiny of the financial solidarity of captives.

When trade associations form captives, they are required by the Act to develop at least \$1,000,000 in annual premiums, a sum which is twice the amount demanded of captives owned by a single parent corporation (Colo. Rev. Stat. 10-6-105). This provision may sometimes be inequitable, since the risk exposure of a group (i.e., trade association members) could be less than that of a single large corporation that produced a hazardous product. On the other hand, the arm's length relationship between a trade association captive and its insureds, as compared with an ordinary captive and its single parent insured, may require this additional measure of protection. In any case, one impact of this requirement is to increase the number of small companies which must join together to generate the necessary premiums.

Also, the trade association captive is only permitted to insure exposures of those member organizations which have been members of the group for one full year. See Colo. Rev. Stat. 10-6-103 (3) (1973). The rationale behind this provision is uncertain. It is relatively clear, however, that such a

provision could preclude a small trade association from having a sufficient number of members to meet the \$1,000,000 annual premium requirement.

Also, the Colorado Act does not exempt captives from investment restrictions that are applicable to standard insurance companies.

Finally, the Colorado Act requires the actual operating offices of the captives to be located in the state: this includes books, records, claims handling, etc. Thus, at all times the offices are immediately available for examination by the Colorado Insurance Division personnel. Such a restriction would impose a hardship on trade associations that would like to form a captive but are headquartered outside of the state of Colorado.

In general, the restrictions under the Colorado law may be too severe to make the remedy a practical one for small business firms, through trade associations or otherwise, to utilize. While information supplied to the Task Force by the Colorado Division of Insurance indicates that a number of captives have been formed under the Act, most of these units have been formed for a purpose other than that of protecting parent corporations from risks created by product liability.

It seems reasonably clear that a number of provisions of the Colorado Act are included mainly to protect the interests of local standard insurance companies. See Vol. VII, Legal Study at p. 241. Obviously, it is a policy decision as to whether these restrictions are necessary. On the one hand, it may be unfair to make standard insurance companies compete with captives when the latter have considerably less stringent regulations than the former. On the other hand, assuming that the minimum capital required is kept at a realistic level, permitting competition between captives and standard insurers may provide a better long range gage as to whether standard insurers' product liability premium rates are both fair and realistic. Also, needless restrictions on trade association captives may preclude their use by small businesses, which are the very groups that may need the device.

As we have indicated, as of July 1, 1977, Colorado is the only state to provide special charters for captive insurance companies. We may expect that other states might become involved in the "captive insurance business" in the next few years; however, the chartering of captive insurance companies appears to be a product liability remedy which would be more efficient and effective at the federal rather than at the state level. Action at the federal level could facilitate rather than restrict the formation of captives by small business trade associations. Questions involving fairness to the parent corporation, injured parties, standard insurers and others could be addressed in one uniform law. If this law were to be deemed exclusive, it could facilitate matters concerning federal taxation discussed in the next section. On the other hand, exclusive federal charters for product liability captive insurers would be an important exception to the basic principle of the McCarran-Ferguson Insurance Regulation Act, 15 U.S.C. Sec. 1011 (1970). This act delegates to the states the responsibility for regulating the insurance industry. For that reason, we believe that at this time, consideration should only be given to elective federal charters for captive insurance companies.

Incentives based on tax savings

The formation of captive insurance companies can be encouraged (or discouraged) by modifications in tax law. One example of tax laws which are favorable to captives can be found in Colorado, where captives pay only a 1 percent tax on all premiums paid to them, while standard insurers must pay a 2 1/4 percent tax. Colo. Rev. Stat. 10-6-128, 10-3-209 (1973). Another example involves offshore captives. They are generally incorporated in countries which do not levy a tax on their profits or premiums received. They are, however, subject to United States tax on profits when the amount of premiums from insuring domestic risks exceeds 5 percent of the total premiums received. Captives are also subject to a 4 percent excise tax on premiums received for the insurance of domestic risks and a 1 percent excise tax on reinsurance premiums for such risks. Int. Rev. Code of 1954 Sec. 953, 4371. More detail and citations for these propositions can be found in Volume VII, Legal Study, pp. 244-245.

allowable, and therefore it may disallow those deductions (Int. Rev. Code of 1954, Sec. 269).

There are no established criteria which guarantee that the IRS will respect a captive's independence for tax purposes. See "The IRS's View of a Captive During an Audit," Business Insurance, pp. 21-22 (2/23/76). Nevertheless, some who have studied the subject have indicated that certain basic guidelines must be met.⁹

For example, it has been suggested that a captive should be adequately capitalized and staffed. It should maintain offices, records, and personnel apart from its parent. Management and boards of directors should not overlap excessively. Premiums received by a captive should be used to further its business, not that of its parent. Loans from the captive to its parent and other such interfirm transfers should be avoided. Contractual arrangements between parent and captive must be at arm's length. One observer has even advised that a captive sell insurance to a third party.¹⁰ See Saggese, "Utilization of a Foreign Captive Insurance Corporation" 1976 Ins. L.J. at p. 528.

While tax policy considerations outside of the field of product liability place emphasis on arm's length dealing between captive and parent, product liability considerations focus more on whether the captive has adequate reserves, formulates rates rationally, assists in the development of sound product liability prevention techniques and engages in other practices that would lower overall insurance costs for businesses in special need of such reductions.

One method of meeting these product liability needs is to have requirements for product liability captives set and chartered at the Federal level. A federally chartered captive (or one that met those requirements at the state level) would then avail itself of the Federal tax advantages set forth on p. 165, above. While the matter deserves further consideration by persons who specialize in tax matters, we would observe that this approach might alleviate the product liability problem for some insureds.

The major potential tax advantage and overhanging uncertainty with regard to captives, however, arises under the federal income tax law. Assuming a captive is treated by the Internal Revenue Code in the same manner as an independent, bona fide insurance company, a parent company would be permitted to deduct the premiums paid to its captive as an ordinary and necessary business expense. Int. Rev. Code of 1954, Sec. 162. Similarly, the captive would be permitted to deduct not only reserved and paid claims but also reserves for estimated but unreported losses. For example, see Int. Rev. Code of 1954, Sec. 832. Thus, given the above assumption, a captive--unlike a self-insured company--could pool pre-tax dollars to fund its parent's risk retention program and could do so without possible exposure to the accumulated earnings tax. The latter applies to earnings retained beyond the reasonable needs of a business. Int. Rev. Code of 1954, Sec. 531-33, 537. See pp. 168 infra. As our Legal Study noted, these tax savings could be substantial. See Volume VII, Legal Study at p. 245.

Since 1972, however, the Internal Revenue Service has challenged the tax-deductibility of premiums paid to captives on the theory that these funds are not expended for the purpose of shifting or transferring the parent's risk exposure to a third party. See Insurance Study at pp. 4-42. Essentially the IRS deems such transfers to be intracorporate payments: the captive insurance company is not thought to be an independent insurance company to which the parent's risk exposure has been transferred.

Thus, deductions for premiums paid to a captive may be disallowed on several related grounds, including the following:

1. the premiums are not legitimate business expenditures, but rather are non-deductible self-insurance expenses (Int. Rev. Code of 1954, Sec. 162);
2. the premiums paid to a captive are not negotiated at arm's length and, therefore, must be disallowed in part or in whole (Int. Rev. Code of 1954, Sec. 482); and
3. the IRS may find that some captives were acquired for the purpose of securing deductions not otherwise

A simpler approach would have the tax law itself spell out the requirements for tax-deductibility of premiums paid to captives. Even if these rules did not modify current IRS policy, they would provide needed clarifications as to when, if ever, captives can be treated like standard insurers for the purposes of Federal income tax law.

Overall Summary and Conclusions

Captive insurance companies provide a potential means of relieving availability and affordability problems for some product liability insureds. A basic unanswered question is whether the device can be utilized by businesses that are suffering these difficulties. The answer to this question depends, in part, on trade associations' willingness and ability to develop captives that would meet basic insurance regulatory requirements.

It may be constructive to establish such requirements at the Federal level and permit captives to obtain a charter at that level. Charter requirements could be drafted that would encourage the formation of adequately capitalized small business trade association captives. Assuming that those requirements were sound, federal income tax deductions might be made available to parent corporations for premiums paid to the captive. This approach would not require that the Federal Government have the exclusive right to charter captive insurance companies, and it would provide an inducement for the formation of captives that have a rational structure.

Structured Self-Insurance Programs

Introduction to the Problem

According to our industrial contractor, a major problem faced by small and medium-sized firms that are unable to obtain product liability insurance, and also by those who retain substantial risks, is the prospect of a single catastrophic claim (or series of claims) that could "wipe out the net worth of the enterprise." Industry Report at p. VI-124. Of course, one method of avoiding this result is the utilization of captive insurance companies. Nevertheless, as has been suggested in the last section, captives

are unlikely to be of practical value to small businesses. While trade associations may be able to form captives, current regulatory schemes may require too large a number of firms to join together. See Volume VII, Legal Study at p. 236. Also, the principle of adverse risk selection may operate with particularly harsh effects in the formation of trade association captives. Finally, a captive whose insureds were primarily small companies with large risk exposures would have difficulty obtaining reinsurance.

Some small and medium-sized businesses that are unable to set up captives might be able to set aside funds for contingent liabilities on an individual basis, as structured self-insurance programs. These businesses probably would have to be among those that might be deemed "large small businesses," e.g., gross receipts of \$1,000,000 to \$5,000,000, in order to have sufficient capital to establish such a fund. See N.F.I.B. Survey on Product Liability at p. 13 (1976). Nevertheless, even those businesses might not pursue that approach because present Internal Revenue Service rules make it uneconomical for firms to assume substantial portions of their product liability risks in this manner. Industry Report at p. VI-124 (showing results of interviews and trade association surveys).

First, the tax laws presently permit a business to deduct a loss from current earnings only after the loss has been suffered. See Int. Rev. Code of 1954, Sec. 165. Thus, a corporation may reserve some of its after-tax earnings for contingent product liabilities, but such a reserve cannot be deducted as a business expense except to the extent losses are actually incurred. On the other hand, it should be remembered that premium payments to a standard insurance company are deductible from income for Federal income tax purposes. See Treas. Reg. Sec. 1.162-1.

Second, under current law accumulations of earnings beyond the reasonable needs of a business are subject to an accumulated earnings tax in addition to the Federal income tax. Int. Rev. Code of 1954, Secs. 531-33, 537. Not only is that tax substantial, but there is some uncertainty as to its application. The Code and the IRS do provide some guidance. For example, the term "reasonable needs of a business" is defined to include those needs which are "reasonably anticipated," such as appropriate

reserves for business risks and potential liability from litigation. Int. Rev. Code of 1954, Sec. 537; Int. Rev. Manual, Part IV Sec. 774.1. Excluded are reserves providing against "unrealistic hazards." Treas. Reg. Sec. 1-537-2(c). There are no "safe harbor" rules, however, and further definition of the reasonable needs of a particular business is dependent upon a case-by-case analysis of its specific circumstances.

In that connection, there is authority to support the proposition that a company may justify its accumulations of earnings by reference to both its own experience and that of other companies. Inter-County Title Co. v. United States, 1975 U.S. Tax Cas. paragraph 9845 (E.D. Cal. 1975). Thus, a company which has never paid a product liability claim in the past may be able to justify an accumulation of earnings as a self-insurance reserve against future product liability claims by pointing to the claims experience of other companies in its industry.

For businesses which are actually involved in product liability litigation, section 461(f) of the Internal Revenue Code may be helpful. In general, this allows a taxpayer who contests an asserted liability to take a current tax deduction for funds set aside to satisfy the liability. To qualify, the funds must be transferred beyond the taxpayer's control to, for example, an escrow agent who agrees to deliver the funds in accordance with the outcome of the litigation.

Proposed Solutions to the Problem

It has been suggested to the Task Force that a possible method of helping to alleviate product liability insurance availability problems for small businesses would be to permit them to set aside a portion of their pre-tax income to fund a specific reserve. The purpose of this fund would be to pay for the defense, settlement, and judgment in product liability suits; these expenses, like the payment of product liability insurance premiums, would be considered tax-deductible. The second change would be a corollary to the first: allow the reserve to be deemed a reasonably anticipated need of a business as defined by the Int. Rev. Code of 1954, Sec. 537. Thus, the fund would not be considered an unreasonable accumulation and therefore would

not be subject to the accumulated earnings tax. Int. Rev. Code of 1954, Secs. 531-33, 537.

It has been suggested that this remedy might reduce the general demand for product liability insurance and thereby increase its supply. See the Remarks of R. Clements, Under Secretary of Commerce's Advisory Committee on Product Liability, Transcript at p. 93 (4th meeting 6/27/77). It is said that the remedy will encourage insureds to utilize product liability prevention measures since their own funds will be at stake. Also, the remedy might help ensure that persons who are injured by products will be able to collect judgments against the manufacturer of the device that caused the harm. Finally, it is a remedy that may have an immediate impact on the product liability problem for some companies.

There were some reasons why the remedy received a relatively warm endorsement from a wide variety of interest groups (including a spokesperson from a consumer organization) at the fourth meeting of the Under Secretary of Commerce's Advisory Committee on Product Liability. See Transcript of meeting at pp. 77, 92-98. On the other hand, there are a number of difficulties with self-insurance as a product liability remedy. First, in light of its potential impact on the tax revenue of the Federal government, strong policy reasons such as those outlined at p. VII-118 would be needed to justify it.

Second, it can be argued that adverse contingencies in many areas should be funded with pre-tax, rather than after-tax dollars. Generally, present tax law does not permit deductions for a company establishing this type of fund. Again, very strong policy reasons would have to be delineated as to why the area of product liability should be given special treatment.

Both of these considerations suggest that deductions should only be permitted in situations where product liability problems made them absolutely necessary. In that regard, the business paying the tax might have to show that product liability insurance was unavailable or that it was unaffordable.¹¹ (See the discussion of affordability at p. 5 and CH VI, p. 18). Of course, even if this requirement were included, the IRS would be confronted with enforcement difficulties.

Aside from requiring a strong showing of a basic need to set up the fund, rules should be devised that would limit its extent. In that regard, it should be noted that it may not be necessary for the fund to be a large one in order to assure that the company has adequate financial protection against product liability claims. For example, if a small company were willing to absorb the first \$25,000 of a product liability risk, it might be able to obtain coverage above that risk at an affordable rate. See Industry Study at p. VI-39; Insurance Study at p. III-20.

On the other hand, it might be difficult to establish precise restrictions on the size of the fund set up by a company which was unable to procure insurance, even if the company self-insured the first \$25,000 of a product liability risk. We have learned that it is very difficult to give accurate predictions of a small company's future product liability experience. Therefore, it would be a great burden for an independent government agency to determine the "reasonableness" of deductions for product liability reserves in that situation. The Internal Revenue Service might face the difficult choice of arbitrarily setting these limitations itself or allowing companies themselves to determine the appropriate amount of the deduction. If the statistical gathering and reporting situations in the insurance industry improved, however, this problem might be alleviated, and the IRS would be able to set rational limitations.

The management of the funds may also create enforcement difficulties. Presumably the fund could be composed of low risk investments that have no reasonable relation to the conduct of the business. To that extent, the IRS would have to except such investments when evaluating whether a company had unreasonably accumulated earnings and was therefore subject to the accumulated earnings tax. Int. Rev. Code, Secs. 531-33, 537; Treas. Reg. 1.537-2(c). Furthermore, in order to prevent the abuse of this dispensation, the IRS might require that money put into the fund could only be withdrawn for specific purposes. Such a requirement might help prevent the reserve from turning into a tax shelter and might protect the reserve from being dissipated.

Summary and Conclusions

While this remedy was only considered by one of our independent contractors (see Industry Study at p. VI-38), we felt it important to discuss. First, it may assist small businesses which have insufficient capital to form a captive. Second, a number of the benefits that are alleged to arise from the use of captives (e.g., better product liability prevention techniques, greater control over litigation and settlements. See pp. 155-160, would flow to individual companies which have structured self-insurance programs. Third, the remedy may prevent a situation from arising where a viable product liability claim against an uninsured small business cannot be enforced because that business has inadequate capital to satisfy a claim. Finally, the remedy may help increase the capacity of the insurance industry to provide product liability coverage.

On the other hand, some have expressed concern about the Internal Revenue Code becoming a deus ex machina for all social problems. Perhaps more important than this general concern is the problem of whether the mechanics of the remedy can be developed so that it will not be subject to abuse. In that regard, the Task Force did not have the opportunity to have the Department of the Treasury undertake a full tax evaluation of this particular remedy.

On balance, this remedy has the potential of providing prompt relief of the product liability problem for some businesses. It has been considered favorably by a wide variety of groups interested in the product liability problem. Therefore, it may be appropriate for the Department of the Treasury to undertake a full tax evaluation of the remedy at this time.

MANDATORY PRODUCT LIABILITY PREVENTION PROGRAMS

Introduction to the Problem

This Report found that one of the three basic causes of the product liability problem is that some manufacturers are producing unreasonably unsafe products. See Chapter I, p. 24. Our Legal Study's review of 655 reported appellate cases showed that there are situations where relatively new televisions catch fire, hammers chip, ladders break, and machine tools confront

workers with risks that are unreasonable. As our Briefing Report indicated, our Legal Study noted that in 132 of the cases sampled, plaintiff relied solely on the fact that there was a defect in the construction of the product--it was not in conformity with the manufacturer's own specifications. Plaintiff was successful in 58 of these cases. Improved quality control practices on the part of the manufacturer might have eliminated those cases.

Plaintiffs were less successful when they alleged that it was a defect in design that caused their injuries. There are, no doubt, some cases where the courts appear to permit a "hindsight" judgment about whether the manufacturer designed his product carefully. On the other hand, in a good number of cases, liability was imposed because the product was deemed to have an unreasonable design in light of the technology available at the time the product was made. See Volume III, Legal Study at pp. 82-83. Improved design review on the part of the manufacturer might have eliminated those cases.

The Legal Study also showed that some manufacturers do not provide adequate instruction about the dangers that may spring from their products. On the other hand, some courts have applied principles of "hindsight" in requiring that "product use" instructions be more specific and detailed. More careful attention on the part of the manufacturer in regard to foreseeable uses and misuses of his product might have eliminated these cases.¹²

Our Insurance Study apparently recognized these trends as it stated that "the ultimate remedy to the product liability problem is to reduce the number and severity of product-related accidents." Insurance Study at p. IV-62. Our Industry Study observed that "product liability prevention programs clearly place a significant incentive for risk prevention where it is potentially most effective..." Industry Study at p. VI-34. Our industrial contractor's telephone survey and the trade association surveys collected by the Task Force show that companies that manufacture potentially hazardous products have placed an increased emphasis on product liability prevention techniques. Approximately 40 percent of the companies responding to the telephone survey indicated that their firm had a special

program directed at reducing product liability claims. See Industry Study at p. I-9: Ch VI at p. 47.

Nevertheless, a number of smaller manufacturers of potentially hazardous products do not utilize product liability insurance programs.¹³ See Ch IV at p. 4.

While the insurance industry appears to have placed an increased emphasis on product liability prevention techniques for their insureds, it has apparently not provided detailed assistance to some of these small businesses.¹⁴

Some have suggested that the Task Force can do little to improve this situation. Professor O'Connell of the University of Illinois has told the Task Force that, "You cannot have complex machinery...without an appalling amount of injuries in an industrial society..." He observed that if the Task Force emphasized the safety problem, it would be "a misdirection of its efforts." See Working Task Force Symposium at pp. 134-136. The Task Force has also been told that increased emphasis on product liability prevention will force cheaper goods out of the marketplace and could potentially cause an over-investment in accident prevention.

On the other hand, Professor John W. Wade, the Reporter of the Restatement of Torts Second, told the Task Force,

"The place where the Federal Government and its agencies will do most is not in regard to the law or the system for approaching it, but...in regard to finding ways of cutting down...accidents"...Symposium at p. 121. See also the remarks of Mr. Markus, Symposium at p. 67 and Mr. Wallace, Symposium at p. 84.

This view has been reflected in the testimony of some consumer groups that have testified before Congress on product liability bills. See e.g. Statement of Anita Johnson, Public Citizen's Health Research Group before the Senate Committee on Commerce, Science and Transportation, 95th Cong. 1st Sess. (4/27/77).

Perhaps the most difficult problem in this area is fashioning legal remedies that will bring about an optimum investment in product safety. We will focus on four approaches here:

1. Requiring manufacturers to use reasonable product liability prevention techniques as a quid pro quo for participation in Government reinsurance or pooling programs.
2. Requiring insurers to build into their product liability rates an appropriate discount when insureds use proper product liability prevention techniques.
3. Requiring insurers to assist in loss prevention activity on the part of their insureds.
4. Increasing Government action to assist businesses in the area of product liability prevention.

Our discussion detailing the nature and purpose of product liability prevention programs themselves is set forth in Chapter IV.

Proposed Solutions to the Problem

Require Manufacturers to use Reasonable Product Liability Prevention Techniques as a Quid Pro Quo for Participation in Government Reinsurance or Pooling Programs.

If Government funds were used to subsidize a product liability reinsurance program or if a mandatory product liability pool were created where some risks were made to subsidize others, this report has suggested that the program should be designed to assure that program beneficiaries utilized reasonable product liability prevention techniques. In that regard, the National Flood Insurance Program required that communities that benefited from it adopt flood management services. These services are intended to render new construction relatively free from the chance of major flood damage. Similarly, the Crime Insurance Programs of 1970 required that beneficiary insureds implement suitable self-protective devices: coverage was conditioned upon the existence and use of those devices.

As a matter of public policy, it would seem even more imperative to require beneficiaries of a subsidized product liability residual insurance program to utilize product liability prevention techniques. In that connection, it should be remembered that the flood and crime insurance programs subsidized insureds against externally created risks. Product liability insurance, by definition, protects a manufacturer against self-created risks. Therefore, it is essential that the beneficiaries of the program establish that they are using all reasonable measures to avoid the creation of such risks.

Our industrial contractor "found no objection from the 20 firms involved in detailed interviews to the prospect of complying with product liability prevention program requirements as a quid pro quo for guaranteed availability of product liability insurance. In fact, they welcomed such a proposed remedy." Industry Study at p. VI-34.

Nevertheless, our Legal Study identified problems with implementing this basic concept. The Legal Study noted that if the requirements were too stringent, the result might be that small businesses--those that needed the program most--would not be able to participate in it. It found some evidence that this had occurred in the Crime Insurance Program. See Volume VII, Legal Study at p. 162. Nevertheless, the implementation of carefully thought-out product liability prevention techniques need not increase the cost of products; on occasion, simple, inexpensive design changes can avoid serious accidents.¹⁵ It is true that the product liability prevention plans themselves will involve increased expenditure that may be beyond the capacity of some businesses to absorb, but the subsidization of the program (through low cost loans or otherwise) need not be confined to providing insurance: it could also flow to providing assistance to insureds in the area of product liability prevention techniques.

Our legal contractor also questioned the fairness of imposing a product liability program on a select group of businesses (those who participated in the subsidized residual insurance mechanism). See Volume VI, Legal Study at p. 196. Nevertheless, these are the very companies that may be most in need of having product liability prevention programs.

The main problem with this approach focuses on providing personnel to implement product liability prevention plans and on evaluating the effectiveness of those plans. Our Insurance and Industry Studies provide little information on these issues, although the former study suggests (as will be discussed below) that insurers are not equipped to provide across-the-board product liability assistance and advice. Nevertheless, if this approach were to be implemented, insurers participating in a reinsurance program could be reimbursed for providing product liability prevention services (when needed) to individual insureds. The insurer could also take on the role of certifying that its insureds followed reasonable product liability prevention programs. It appears, however, that such programs would have to be supervised by the Commissioner of Insurance. The Texas Accident Prevention Services Act (which requires Worker Compensation insurers to provide accident prevention information to their insureds) provides a model as to how this system might be implemented. See Tex. Ins. Code art. 5.76 (1976). See also Oregon Laws C. 585 (1975).

Because of the lack of information and analysis in our contractor reports, we have only presented initial suggestions with respect to this proposed solution to the product liability problem.

Require Insurers to Build into Their Product Liability rates an appropriate discount when insureds use proper product liability prevention techniques.

Our industry contractor conducted visits to twenty firms for the purposes of obtaining firsthand information about their product liability experience. The firms were selected with the assistance of trade associations that had agreed to cooperate in the Interagency Task Force Study. According to our industry contractor, "None of the firms was able to demonstrate any relationship between its prevention program and its product liability insurance costs." Industry Study at p. IV-102.

On the other hand, our insurance contractor indicated that 66 percent of the insurance companies it sampled developed "written guidelines defining the type of product that normally requires a loss control survey before a final underwriting decision can be

made." Insurance Study at p. 1-42. This loss control survey apparently considers whether a manufacturer has taken steps to reduce or eliminate risk-creating problems. In sum, the insurance contractor suggested that the implementation of loss prevention measures is occasionally taken into account by underwriters setting product liability rates. See Insurance Study at I-44. Nevertheless, the study reveals that many other factors are involved in determining the final product liability premium and that it is "primarily a judgmental exercise." See Insurance Study at p. I-38.

Our Insurance Study also stated that to the extent previous safety programs have improved loss history, premiums are reduced through experience credits. See Insurance Study at p. IV-64. The insurance contractor indicated that new or improved safety practices which should improve future experience "are acknowledged through scheduled credits, generally up to a maximum of 25 percent of premium" (see Insurance Study at p. IV-64); however, our industry contractor interviews appear to contradict this assertion. See Industry Study at p. IV-102.

Thus, we are unable to make any generalized observation as to whether insurers provide that a manufacturer's product liability premium will be diminished by the insured's application of a product liability prevention plan. Our Legal Study suggests that individual States, due to their constitutional power to regulate insurance rate structure, could compel liability insurers to take account of such plans in fixing product liability premiums. It also suggests that it may be possible for Congress to require State Insurance Commissioners to promulgate and enforce orders reflecting such differentials, although the study indicates that this "might perhaps be subject to constitutional attack." See Volume VI, Legal Study at p. 197.

There are a number of problems with this approach. First, since the prevailing market system for product liability insurance often has the coverage sold as part of a larger package of coverage, it would be difficult to mandate a premium reduction of X dollars or a percentage of dollars per safety feature. See Volume VI, Legal Study at 198.

Second, there may be some justification for reluctance on the part of insurers to reduce premiums when insureds utilize product liability prevention plans because of the lack of evidence that the plan will ultimately result in a lowering of the number or amount of claims. In that regard, our industry contractor could not present conclusive proof that the implementation of a sound product liability prevention program would reduce claims. Nevertheless, common sense suggests that a safer product should eventually result in a reduction in the number and severity of claims and legislation might be predicated on such an assumption.

A third problem is that product liability coverage usually extends to risks represented by products that were manufactured in the past. A new, sound, product liability prevention plan would not shield the insured from all claims. Nevertheless, this should not be a reason to ignore totally the insured's current use of a product liability prevention plan.

Fourth, it has been suggested to the Task Force that the use of mandatory differentials may be "inefficient, since the very reason for buying insurance is to achieve some degree of loss spreading." See Volume VI, Legal Study at p. 198. Nevertheless, some advantage should be given those who are attempting to use means that will help resolve the product liability problem.

In light of all of these problems connected with a rule mandating that insurers provide a premium discount when insureds develop sound product liability prevention programs, our Legal Study suggested that alternative approaches should be examined such as safety investment tax credit. See Volume VI, Legal Study at p. 199. Unfortunately, the legal contractor did not provide any analysis with respect to its own suggestion.

In sum, both our Legal and Insurance Studies took a negative view of rules that would impose premium differentials based on insureds' utilization of product liability prevention techniques. While we appreciate some of the problems this approach would involve, we believe that it should not be abandoned at this point and that it is worthy of further consideration.

Require Insurers to Assist in Loss Prevention Activity On Behalf of Their Insureds.

About ten years ago Professor Herbert Derenberg (in connection with a study made for the National Commission on Product Safety) said, "it would be an act of gross social irresponsibility to permit insurance companies to acquire...expertise in saving life and limb and then permit them to utilize this information only for the purpose of estimating the cost of deaths and injury and not for the purpose of eliminating death and injury." See Volume VI, Legal Study at p. 200.

At the time, Professor Derenberg found "few success stories" about insurers' counseling their insureds about product dangers. Id. Limited information brought to the attention of the Task Force suggests that insurers are doing a better job in this area.¹⁶ Our industry contractor observed that insurance organizations are becoming "increasingly more knowledgeable about the risks they insure." Industry Study at p. VI-34. The report then observed that "if product liability prevention programs are to impact on the availability and affordability of product liability insurance, the most direct linkage would clearly be to require the State Insurance Commissioners, and/or the insurance industry to determine the adequacy of a firm's product liability prevention program." Id.

On the other hand, our Insurance Study suggests that requiring the insurance industry to provide their insureds with assistance in developing loss prevention plans meets at least three objections.

First, insurance company loss personnel are often generalists who understand sound operational practices. Probably the majority, however, lack the specific knowledge that would enable them to evaluate manufacturers' needs and objectives in regard to their individual products. To provide this knowledge, the insurance companies would be required to effect "a tremendous increase in the training and manpower currently devoted to loss control..." Insurance Study at p. IV-64. Assuming that this is true, a cost estimate would have to be made as to how much this would impact the cost of premiums. Our industry contractor made

a rough estimate of a program of insurer inspection and certification of individual insureds' product liability prevention programs that is set forth in VI-36-37 of that study.

It has been brought to the attention of the Task Force that a number of businesses have recently been developed that purportedly assist companies in the area of product liability prevention. It has been suggested that insurers may be in the best position to assess the quality of these businesses; they might decide to utilize their personnel to assist insureds in the area of product liability prevention techniques. This is one method whereby insurers, without increasing their own staffs, could assist insureds in loss prevention.

Closely related to the "cost burden" problem is the assumption that "it may be unreasonable to expect small individual liability insurers to have competent counseling capability for many different branches of industry." See Volume VI, Legal Study at p. 203. We are uncertain whether the application of premium surcharges would alleviate this problem.

The second objection to mandating loss control efforts by insurers rests on the fact that persons who administer the Occupational Safety and Health Act and the Consumer Product Safety Commission are already working to develop and enforce safety standards. See Insurance Study at p. IV-64. Nevertheless, as our discussion in the next section will show, these agencies do not provide individualized guidance to manufacturers about their product liability prevention plans.

A third objection to mandating loss control efforts by insurers is that they "simply do not want to be forced into a policing role which would place them in opposition to their customers." See Insurance Study at p. IV-65. The insurers "feel that their loss control efforts can be far more successful if they are able to work totally in cooperation with, rather than in opposition to, their insureds." Id.

While the Task Force appreciates this problem, it is also quite concerned that the present system permits insurers to provide product liability coverage to some insureds who generate a large volume of premiums for other coverages "notwithstanding the manufacturer's failure to observe sound loss control practices." See Insurance Study at p. IV-63.

A final problem connected with requiring insurers to assist in the loss prevention activities of their insureds is mentioned by our Legal Study. The process may subject the insurers themselves to liability⁷ for negligent inspection. See Volume VI, Legal Study at p. 203.

This assumption was apparently prompted by some cases from the Worker Compensation area. These cases have held that when an insurer voluntarily and without any obligation makes a safety inspection of the premises, it may be deemed liable for its negligence in so doing when a worker is injured by a condition which the compensation carrier "should have" discovered. See e.g. Nelson v. Union Wire Rope Corp., 31 Ill. 2d 69, 199 N.E. 2d 769 (1964).

It should be noted that these cases do not necessarily suggest that liability would be imposed on an insurer in the context of product liability insurance.

First, the greater number of decisions have held that insurers are not liable for negligent inspection in the Worker Compensation area. See Boynton and Evans, "What Price Liability for Insurance Carriers Who Undertake Voluntary Safety Inspections," 43 Notre Dame L. Rev. 193 (1967). (Most of these cases relied on immunity provisions of Worker Compensation laws).

Second, there is a special incentive to bring suits against insurers in the Worker Compensation area that would not be applicable in the area of product liability. In the Worker Compensation situation, an injured party is looking for a potential tort defendant where the worker can overcome the restrictions of the Worker Compensation law. This situation is unlikely to arise in the area of product liability. If a person is injured by a defective product, he can sue the manufacturer for full tort law damages.

Third, assuming the product is defective, a product liability insurer would still be subject to paying the tort law product liability award in any event: it would make little difference if the insurer were sued directly or paid indirectly.¹⁸

A fourth distinction is that in this situation, the insurer would be required to inspect its insured. The law that set forth that requirement could limit the liability of insurers to situations where their inspection effort "involved reckless, willful or wanton misconduct." See Mass. H.B. No. 4350 Sec. 6 (1976).

In sum, we are not persuaded that it would be inadvisable to require insurers to provide product liability prevention assistance to their insureds and to certify that those insureds maintain reasonable product liability prevention techniques. We observe that this requirement has been imposed in at least two states in the area of Worker Compensation laws¹⁹, and we think it would be valuable to have more information about how that requirement has worked in those states.

The greatest objection to the approach concerns cost. Nevertheless, insurers have told the Task Force's insurance contractor that the costs of claims have been extraordinary in recent years. We are not certain that it is unreasonable to require insurers to attempt to reduce those costs by reducing the number and severity of product-related accidents.

Increase Government Action to Assist Businesses in the Area of Product Liability Prevention.

The Task Force's Briefing Report suggested that "the Federal Government, through an appropriate agency, could provide...product liability prevention technique information and (in very special cases) technical personnel to assist businesses in making their product safe." See Briefing Report, at 21. The report suggested that the information might be generated by data collected and assembled by both the Consumer Product Safety Commission and those administering the Occupational Safety and Health Act. The report also suggested that the Administration could request that the agency set aside an appropriate officer to collect and make available such information. The agency could also be requested to work with OSHA and the CPSC to develop a program whereby the government would provide product liability prevention personnel as well as information to small businesses that had a special need for such assistance.

These conclusions are still valid but need to be developed in more detail. In that connection, our insurance contractor strongly suggested that appropriate government agencies would be a better source for assisting businesses in product liability prevention than the insurance companies themselves. See Insurance Study at p. IV-64.

Our legal contractor observed that the Consumer Product Safety Commission is already required by law to maintain "...an Injury Information Clearinghouse to collect, investigate, analyze, and disseminate injury data and information, relating to the causes and prevention of death, injury, and illness associated with consumer products..." 15 U.S.C. Sec. 2054 (a)(1) (1974).

The Chairman of the Consumer Product Safety Commission has testified that his agency may, in the future, be able to supply "more reliable brand-specific information about the explicit causation of injury..." Statement of S. John Byington before the Senate Select Committee on Small Business, 95th Cong. 2d Sess. (4/26/77). The Commissioner observed that his organization had "offered several forms of technical assistance or advice to various manufacturers." Id. He indicated that the Commission "must take steps to make such data and analyses even more available." Id. On the other hand, he observed that it was "not feasible" for the CPSC to provide direct technical assistance to manufacturers. He stated, "The CPSC could not afford to take on any responsibility for product design, manufacturing or marketing decisions of manufacturers." Id. He believed that the CPSC "should carefully avoid getting in the position of taking part directly in product engineering activities of individual companies." Id.

The Commissioner stressed the need for voluntary product safety standards, but noted that it might be useful to have an "independent third-party testing agency...determine acceptability of standards as well as certify that a firm's products are in conformance." Id.

Our Legal Study observed that in 1970, "the National Commission on Product Safety reached the conclusion that the expertise needed to design safe products was available to

industry." See Volume VI, Legal Study at p. 205. Nevertheless, that expertise may not, as a practical matter, be available for small businesses. While it may be necessary for the CPSC to limit its role to supplying information and data about risks, it could, according to its Commissioner, make more vigorous attempts to ensure that this information reaches the manufacturers who need it.

Of course, the CPSC does not cover safety regulation of workplace products. The Secretary of Labor has the authority to require businesses to keep records, to obtain reports, and to conduct investigations of workplace injuries and OSHA has done so on a selected basis. See Volume VI, Legal Study at p. 204. At present, it would appear that that information is only supplied to the employer utilizing the machine--it does not necessarily reach the manufacturer of the product. Similarly, there are other Federal agencies which have a firsthand opportunity to collect or disseminate data concerning product-related injuries, but this information may not at present be reaching product manufacturers who need it. See Volume VI, Legal Study at p. 204.

In sum, we believe that it would be useful to explore whether an appropriate agency could coordinate these various information skeins and ensure that all the necessary information is made available to appropriate manufacturers. While our focus has been on products manufactured in the United States, consideration might also be given as to whether similar information might be supplied to manufacturers of products that are imported.

The issue of whether the Federal government should provide direct technical assistance to product manufacturers is a more difficult one. There are unanswered questions with respect to both cost effectiveness and personnel. Also the Department of Labor's representative to the Working Task Force has pointed out that OSHA maintains that providing detailed engineering advice would take it out of its regulatory role and put it in direct competition with private consulting firms. In any event, competent product liability prevention specialists in the private sector should be utilized before the government attempts to undertake that type of responsibility.

Because it goes to one of the very roots of the product liability problem, we conclude that the Administration should consider whether this type of assistance can be made available to those businesses which are unable to obtain such guidance from their insurers and also are not in an economic position to be able to provide it from their own resources.

Summary and Conclusions

While most groups interested in the product liability problem would agree with our insurance contractor that product liability prevention is "the ultimate remedy," there appears to be no consensus as to how to encourage manufacturers to adopt these techniques. Our data suggest that in the past few years, the tort system itself has been a spur to some manufacturers (and insurers) to place increased emphasis on product liability prevention programs.

We conclude that any law which allows a subsidy to individual insureds (through a reinsurance or pooling program) must include a provision that will provide the product users with the assurance that the program's participants utilized reasonable product liability prevention techniques. As our discussion in this section has shown, this suggestion is not easy to implement in practice.

We recognize that there would be great problems in requiring insurers to build into their product liability rates an appropriate discount when insureds used proper product liability prevention techniques. The greatest of these problems is that there is no conclusive proof that such a program will necessarily reduce the number of claims. Nevertheless, we believe this is a matter that deserves further consideration by those charged with the responsibility of regulating insurance.

We are convinced that insurers are in an excellent position to assist individual insureds in implementing sound loss prevention programs. Our Insurance Study suggests, however, that there are some serious problems with making a requirement of this type mandatory. The greatest of these problems concerns costs. Nevertheless, in the long run, such a requirement should lower insurance costs because it should reduce the number of product-

related accidents. We suggest that further consideration be given to whether an appropriate surcharge might be added to product liability insurance which would allow a mandate of this type to be implemented.

Finally, we are persuaded that the Federal government could better utilize existing resources to assist businesses in the area of product liability prevention. It would be possible under existing legislation for an appropriate agency to coordinate product risk information from a variety of agencies and make it available to manufacturers that could benefit from it. The CPSC itself could make increased efforts in this area with regard to consumer products.

We are less certain that the government should engage in providing direct technical assistance to product manufacturers in the area of product liability prevention techniques. Personnel capable of providing such assistance may already exist in the private sector. That is one reason why we have emphasized the need to give further consideration to mandating premium reduction where insureds utilize product liability prevention techniques and to requiring insurers to assist insureds in obtaining assistance of this kind.

In sum, the government appears to be capable of doing more to encourage further voluntary use of product liability prevention.

REMEDIES DESIGNED TO ELIMINATE UNSATISFIED JUDGMENTS

Introduction to the General Problem

At the Interagency Working Task Force Symposium on Product Liability, Professor Olsen of the Wharton School of the University of Pennsylvania observed:

In a sense, self-insurance, captive insurance companies, or all of the alternatives to the private insurance mechanism, are desirable. They are desirable because such a procedure generally serves to focus the attention of management on [a] basic, fundamental issue: preventing the loss from arising. . . But in a sense it is an extremely dangerous movement. Manufacturers for the most part who are moving in this

direction are not at the present time equipped to allocate financial assets to back the potential liability...Symposium at 33.

Professor Olsen further observed that this trend is going to "strand the victim." He noted that in the area of Worker Compensation, the law requires employers "to prove that they are financially able to fund the claims which result from the disability of their own employees." He then questioned whether it was "any less justifiable to place the same requirement on businesses today with regard to the injuries which are sustained because of unsafe products?" Id. at 34. In effect he suggested that manufacturers should not be permitted to distribute products in a State unless they prove that they have the financial responsibility to respond to product liability judgments.

Professor Olsen's argument favoring mandatory product liability insurance laws derives further analogous support from the principle that underlies compulsory automobile liability insurance laws: the activity of owning and operating an automobile creates so great a risk of injury that it only should be engaged in if the owner of the vehicle has liability insurance. See Volume VII, Legal Study at p. 11. To a large extent the same assumption underlies automobile Financial Responsibility Laws. See Volume VII, Legal Study at pp. 12-13.

On the other hand, it has been argued to the Task Force that the enactment of a mandatory product liability insurance law at this time would be a classic case of "using an elephant gun to kill a flea." Those who espouse this position contend that the only protection a consumer needs against the possibility of default judgments is the establishment of an unsatisfied judgment fund.

Before undertaking an analysis of either of these remedies, it is essential to estimate whether the present factual situation suggests that they are needed. We will first discuss that question and then consider the major difficulties that mandatory product liability laws and unsatisfied judgment funds might create.

Proposed Solutions to the Problem

Do Data Show that Mandatory Product Liability Insurance Laws or Unsatisfied Judgment Funds are Needed?

As Chapter III indicates, about three fourths of the trade association surveys asked respondents whether they carried product liability insurance. The percentage of firms not carrying product liability insurance ranged from 0 to 21 percent among the 15 trade associations surveys that asked this question. Approximately 16 percent of the respondents in our industrial contractor's telephone survey indicated that they had no product liability insurance; however, within the small firm category, the percentage was considerably higher (29 percent). The reasons for not carrying insurance varied. Most respondents indicated that they did not need it. Some firms indicated that they were self-insured. A smaller number said they thought it was too expensive, and an even smaller number indicated they could not get insurance or reported that their insurance had been cancelled. (For details see Chapter III, pp. 9-12).

In evaluating these statistics it should be remembered that the companies surveyed were those that manufacture products which have the potential for causing very serious harm, e.g., machine tools, textile machinery and health industry manufacturers. Therefore, they are companies that have the potential of having large claims filed against them. Our industrial contractor did determine whether these companies had sufficient capital and not income to respond to potential product liability judgments. A hint that some would not be able to so respond arises from the fact that smaller firms were more likely to go without insurance and not have any organized self-insurance program. Nevertheless, it should be remembered that the trade association surveys were subject to all the limitations outlined in Chapter III, p. 4. Thus, we are left with fragmentary data about this issue.²⁰

Moreover, we must rely on fragmentary data to conclude or derive a trend that the number of businesses going without product liability insurance is increasing. We do know that our industrial contractor's telephone survey showed that, between 1971 and 1976, there was a substantial increase in the number of firms that have used deductibles. See Industry Study at p. I-7.

But the average deductible or self-insurance retention level appeared to rise in firms that could absorb it (500 percent in large firms, 110 percent in medium firms) and to be reduced in firms that were less likely to be able to absorb it (the average amount of deductibles decreased 44 percent in small firms).

About the most specific indication of a problem can be found in the very recent National Federation of Independent Business' survey of their membership. It reported that almost 3 percent of those responding to the survey have "gone bare," i.e., they used to have product liability insurance and are now unable to afford it. See NFIB Survey Report on Product Liability, p. 3 (1977).²¹

Finally, it should be noted that in the 12-month period following the Task Force's formal notice of its operation²² no case was reported to the Task Force where a manufacturer was unable to respond to an adverse product liability judgment.

Of course, one reason for this may be that a plaintiff in a product liability case often has a number of potential defendants to choose from, e.g., the retailer, the distributor, or a component part manufacturer. Thus, if the manufacturer were out of business, the plaintiff might still be able to enforce his claim. See Insurance Study at p. IV-57.

Thus, at this point, the product liability situation differs markedly from the situation underlying the imposition of mandatory liability insurance in the automobile area. There, data showed that many persons injured by negligent drivers were going uncompensated. See Opinion of the Justices, 251 Mass. 569, 147 N.E. 681, 698 (1925). See also Automobile Insurance Company v. Winn & L. Grocery Co., 180 Ga. 684, 180 S.E. 608 (1935); 12 Couch on Insurance 2d Sec. 45.665 at 597 (1964).

The product liability situation also differs from the circumstances that led to Worker Compensation. Worker Compensation laws did not arise because employers were financially unable to respond to tort judgments. Those laws came into existence because the tort system itself prevented a large number of injured workers from being able to recover against negligent employers. See New York C.R. v. White, 243 U.S. 188 (1917); 3A. Larson, The Law of Workmen's Compensation Sec. 92.10

at 508.67 (1976). This situation does not appear to exist in the area of product liability.

In sum, our data show that the situation that exists at present in the field of product liability differs considerably from the situations that brought about mandatory insurance in the areas of automobile accidents and Worker Compensation; however, we recognize that our data are far from complete. See Insurance Study at pp. IV-57 & 58.

Furthermore, the situation with respect to unsatisfied judgments could change in the future. See CH. VI pp. VI-34 - 35. For these reasons, we will discuss two remedies that are specifically designed to ensure that a plaintiff injured by a defective product is able to collect his judgment: a mandatory product liability law and a State-operated unsatisfied judgment fund.

Mandatory Product Liability Insurance Laws

Introduction to the problem

Our insurance contractor only raised questions about the operational aspects of mandatory product liability laws--it did not provide answers to those questions. See Insurance Study at pp. IV-58 & 59. Our Legal Study provided a discussion that had some depth, but found itself limited by the absence of specific legislative models. See Volume VII, Legal Study at pp. 11-23. Therefore, we will only highlight some of the major problems that would confront legislators who would consider a mandatory product liability law.

Which manufacturers would be covered by the law?

It is helpful to restate the general purpose of such a law: it is to protect persons injured by defective products against financially irresponsible manufacturers. Would it be necessary to have all product manufacturers furnish evidence of financial responsibility in order to achieve this goal?

An approach followed in some States in the area of automobile accidents is to limit the imposition of mandatory insurance to

those who have shown themselves to be financially irresponsible. See Volume VII, Legal Study at p. 12-13. Those laws have been severely criticized because they "lock the barn door after the horse is out." This would seem especially true in the area of product liability: if a corporation could not pay off a judgment, it would be an indication that it was financially unable to continue in business. Moreover, if it were to continue in business at that point, it might be extremely difficult for it to obtain product liability insurance.

Therefore, if a mandatory product liability insurance law is to be effective, it probably will have to require that all manufacturers, distributors and sellers, as a condition to manufacturing, distributing, or selling their products in a State, obtain product liability insurance.

Nevertheless, it may not be necessary to place all businesses under the regimen of such a law. Our Legal Study suggests that it may be possible to limit the application of the law to those whose past claims and injury experience show that its product is particularly hazardous and presents a high risk of injury. See Volume VII, Legal Study at pp. 12-13.

How could such products be identified? One resource might be the Consumer Product Safety Commission's Hazardous Products List (derived from the National Electronic Injury Surveillance System (NEISS)). Nevertheless, our Industry Study suggests that the NEISS system has some serious shortcomings; thus, it may be unfair to impose a mandatory product liability insurance law on manufacturers solely on the basis that their products are included on the CPSC Hazardous Products List. See Industry Study at pp. III-27. Also, a particular manufacturer of a product on the Hazardous Products List, e.g., lawn mowers, may have an unusually good claim record due to the product's safe design. Should that manufacturer be subject to mandatory product liability insurance?

A special coverage problem that would have to be determined under a State level mandatory insurance law would be whether it applied only to manufacturers within a State or also to manufacturers of products that were shipped into a State. Practical political, as well as the ultimate policy,

considerations with this remedy, i.e., assuring protection to the injured party, might dictate that the coverage include products shipped into a State. While our Legal Study suggests that a State might have the constitutional power to do this (and not violate the Commerce Clause), enforcement of the rule with respect to non-domestic corporations might be difficult.

While we have used the topic heading "Mandatory Product Liability Insurance Law," legislators would have to consider whether other means might be used as a substitute for mandatory insurance. For example, it may be reasonable to exempt corporations with structured self-insurance programs from the mandatory insurance requirement. If this were done, however, that structure would either have to be defined in the statute or administratively determined.

How much coverage would be necessary?

Assuming that groups of manufacturers could be singled out for the application of a mandatory product liability insurance law, that law would have to indicate the amount of required coverage, e.g., \$100,000 per accident, and also indicate how much aggregate coverage would be required. It would have to indicate how high a retention level would be acceptable and also show how products coverage would be coordinated with other general liability coverage. While our Insurance Study suggested that these problems would be serious ones (see Insurance Study at p. IV-59), they would not appear to be insurmountable. As our Legal Study shows, even if the minimum amounts of coverage varied according to the type of product or the size of the business involved, it is probable that they would be upheld in courts of law if a reasonable basis for distinction existed. It has been held that compulsory insurance acts, like licensing and tax regulations, may apply differently to various classifications so long as that reasonable distinction is maintained. See Volume VII, Legal Study at p. 16.

Relationship with residual insurance mechanisms

Both our Legal Study and the Federal Insurance Administration's representative to the Working Task Force strongly suggested that a necessary concomitant of a mandatory

product liability insurance law would be some sort of residual risk mechanism for the risk unable to obtain coverage in the voluntary insurance market. See Memorandum of Howard B. Clark, Special Assistant to the Administrator, Federal Insurance Administration, Department of Housing and Urban Development, dated 10/26/76. Mr. Clark observed that since the purpose of the legislation is to ensure appropriate compensation to the accident victim, such insurance must be provided. Of course, the Government would have the power to decide that certain businesses were not deserving of insurance because they did not follow reasonable product liability prevention techniques. The net result would be to bar those products from being sold within the jurisdiction.

A similar power exists to prevent reckless drivers from operating an owned automobile under State mandatory automobile insurance laws. State legislators and administrators have had great difficulty making judgments in this area, and there is no reason to suspect that these difficulties would be mitigated under a mandatory product liability insurance system. Cf. Vorys, "A Short Survey of Laws Designed to Exclude the Financially Irresponsible Driver from the Highway," 15 Ohio State L.J. 101 (1954).

One consideration suggests that this problem might not be as great as one would imagine. Under a mandatory product liability insurance law, more risks (both good and bad) would be available for a pool: this might make the system better able to absorb all of the risks. Of course, one is left with a policy question, i.e., whether good risks should be compelled to pay for the bad.

All of the considerations set forth thus far suggest that there may be substantial constitutional challenges to a mandatory product liability insurance law. In an attempt to provide some guidance on that matter, our Legal Study focused on cases where persons have challenged the constitutionality of mandatory automobile insurance laws and Worker Compensation laws. Those cases suggest that if there were a need for a mandatory product liability insurance system (because there was some likelihood that victims of defective products would be unable to enforce their judgments without it), legislative attempts to use a reasonable basis for setting rules on coverage and exemptions,

and for formulating a risk-spreading residual mechanism would be upheld by State courts. See Volume VII, Legal Study at pp. 14-16.

Relationship with no-fault compensation systems

The Federal Insurance Administration's representative to the Working Task Force suggested that it was "almost fatuous" to create compulsory insurance requirements for the current product liability system where it is estimated that only slightly more than one third of each premium dollar in benefits is actually supplied to the victim. See Memorandum cited, p. 194. See also our discussion of no-fault compensation systems at p. 279. The premise for the representative's observation was that a compulsory insurance requirement has as its purpose and function the compensation of accident victims.

Although this premise is true, that purpose could be limited to provide compensation only to those who have been injured by products that have been defined as defective within the common law of a particular State. Similarly, some States have imposed compulsory automobile insurance requirements in order to assure that victims of negligent driving are compensated. Nevertheless, the operation of a mandatory product liability insurance system might be facilitated if it were connected with a total no-fault compensation system plan. Some evidence of this is the fact that the overwhelming majority of States have shied away from enacting a compulsory automobile insurance law unless it is coupled with a no-fault system.²³ See the discussion in Volume VII, Legal Study at pp. 16-18.

Unsatisfied Judgment Funds

Introduction to the problem

A second method of dealing with the potential problem of manufacturers of products being unable to respond to product liability judgments is by establishing an unsatisfied judgment fund. According to our Legal Study, these funds are established for the benefit of injured plaintiffs who are unable to collect an otherwise enforceable judgment. See Volume VII, Legal Study at p. 24. To date, they have only been used in five States. The

funds protect citizens against uninsured drivers from other States and also against unlicensed and unidentified hit-and-run drivers. States have used these funds both instead of and in addition to mandatory insurance laws.

In the area of product liability, an unsatisfied judgment fund would be supported by the Task Force's first consideration: ensuring that a person injured by an unsafe product receives reasonable compensation for his or her injury. See p. 4. As indicated at p. 191, we have been unable to develop data suggesting that there is an immediate need for the establishment of an unsatisfied judgment fund. The basis for its establishment at this time would have to rest on anecdotal assertions by some trade association representatives and on speculative circumstantial evidence that some companies in the not too distant future may be unable to respond to product liability judgments.

Because there may be a need to implement this remedy in the future, we will discuss some of the major issues that would have to be faced if a legislature were to give serious consideration to this remedy.

The source of revenue for an unsatisfied judgment fund

Automobile unsatisfied judgment funds provide a variety of approaches for developing sources of revenue. One source could be a tax on product manufacturers themselves. Not all manufacturers would have to be subject to the tax--it could be restricted to manufacturers of products that are likely to cause product liability suits. There would probably have to be an administrative determination as to which manufacturers had to pay the tax. An alternative would be to place the tax on manufacturers who were unable to demonstrate that they were financially capable of responding to product liability judgments, i.e., manufacturers that have inadequate product liability insurance or an undercapitalized self-insurance fund. Under either of these approaches, the costs of having an administrative agency make judgments about which manufacturers should be subject to the tax would probably be quite extensive.

If a legislature were to choose a tax on all manufacturers as its source of funding an unsatisfied judgment fund, it would have to determine whether out-of-state manufacturers that shipped goods into the State would also be taxed. Assuming that such a tax would not be deemed unconstitutional under the Interstate Commerce Clause, the process of imposing a tax on out-of-state manufacturers might be difficult and expensive to enforce.

A second source of funding would be product liability insurers themselves. A surcharge could be placed on insurers in proportion to the amount of product liability insurance they wrote in a particular State. Nevertheless, this approach might have the untoward effect of discouraging the writing of product liability insurance at the very time there may be a social need to encourage the opposite conduct on the part of insurers. Cf. Volume VII, Legal Study at p. 28.

On the basis of the reasons set forth below, both our Legal and Insurance Studies suggest that if an unsatisfied judgment fund is to be established, general tax revenues would be the best source of funding. See Insurance Study at p. 4-60; Volume VII, Legal Study at p. 29. The studies speculate that this approach would be the least expensive from an administrative point of view and would also distribute the fund's resources to the parties who potentially would benefit from it, i.e., product users within the State. Of course, this approach would leave the very party which caused the need for the fund--the manufacturer who could not respond to the judgment--totally untouched. Even if the fund were granted subrogation rights against such manufacturers, these rights would probably be worthless in most instances.

Procedure for recovery against the fund

State automobile unsatisfied judgment funds provide for two basic procedures for recovery. In most States the claimant must sue the party who caused the injury. A few States allow a claim to be brought directly against the fund in a limited number of situations. See Volume VII, Legal Study at p. 25. This approach may be justified in the automobile area when dealing with hit-and-run motorists or stolen motor vehicles. In the area of product liability, however, it would seem reasonable to require the claimant to try to enforce his judgment against the defendant

before bringing the claim against the fund. This would assure that there is an absolute need for the fund to be utilized.

Limitation on amounts paid out of the fund

According to our Legal Study, all of the unsatisfied judgment funds in the automobile area have coverage limitations. They range from \$10,000 to \$20,000 for each person and from \$20,000 to \$40,000 for each accident. It would seem necessary that some coverage limit be placed on a product liability unsatisfied judgment fund. When a legislature is fixing a ceiling on payments out of a product liability unsatisfied judgment fund, it would be appropriate for it to look at relevant information contained in the Insurance Services Office Survey. See ISO Survey, Detailed Analysis, Table 1-1, p. 18 (showing the average payment in each of the fifty States and the Commonwealth of Puerto Rico).¹ It would seem that legislators would have particular difficulty in fixing a ceiling in the area of product liability for the maximum amount of coverage in regard to a particular product manufacturer. This is true because a product that is defective in design could potentially cause many suits with a net total of claims far above \$40,000, \$50,000 or even \$100,000 limitations. (Compare the situation with regard to automobiles, where the number of potential claims per incident is more limited).

In addition to setting a ceiling on damages, both our legal and insurance contractors suggest that it may be appropriate to abolish, in whole or in part, the collateral source rule when it is necessary for a claimant to turn to an unsatisfied judgment fund. Cf. Md. Code Ann. art. 48A Sec. 243-I (b) (Supp. 1976) ("All amounts that the applicant has received or, in the opinion of the court, is likely to receive from any source...It would be unsound policy to make an unsatisfied judgment fund receive the "sting" of the collateral source rule--the net result would be to reduce the total resources available to persons who were uncompensated as the result of an accident. Again, it must be emphasized that the purpose of the fund is to provide a person injured by a product with reasonable compensation. See Volume VII, Legal Study at p. 26. For the same reason, it would seem inappropriate to charge punitive damages against the fund. See Insurance Study at p. 4-60.

Obviously, claims against the fund could also be reduced if damages for pain and suffering were eliminated. The arguments for and against eliminating damages for pain and suffering in the context of the normal tort-litigation system are set forth at pp. 64-69, above. Pressure on the fund might also be reduced by ensuring that it had a subrogation right against the defaulting defendant; nevertheless, as has been indicated, it would seem unlikely as a practical matter that this right would be very effective.

Summary and Conclusions--Comparison of
Mandatory Product Liability
Insurance and Unsatisfied Judgment Funds

While our review of mandatory product liability insurance laws and unsatisfied judgment funds was only preliminary in nature, it would appear that the latter is a more costly and complicated remedy to enact than the former. An unsatisfied judgment fund based on general revenue, however, would eliminate major classification and administration problems that one would encounter under a mandatory product liability insurance law. On the other hand, a properly instituted mandatory product liability insurance law would to a great extent eliminate the need for an unsatisfied judgment fund. Further, a mandatory product liability insurance law would be more likely to ensure that the costs of a product-related accident are directly placed on the accident-creating activity.

If there were relatively few cases where judgments against product manufacturers were unsatisfied, it would seem that, all things considered, an unsatisfied judgment fund would be preferable over a mandatory product liability insurance law. If the problem of default judgments in the product liability area became more widespread, mandatory product liability insurance would then have to be given greater consideration. From the point of view of the consumer, it is unreasonable to permit a manufacturer to sell products when that manufacturer is unable to respond in damages if those products prove defective and injure purchasers.

At this time, however, data do not show that product liability judgments are likely to go unsatisfied. Therefore, we agree with our legal and insurance contractors that neither mandatory product liability laws nor unsatisfied judgment funds should be implemented at this time.

NOTES TO PROPOSED MODIFICATIONS OF
PRODUCT LIABILITY INSURANCE MECHANISMS

¹Interviews conducted by our industrial contractor showed that manufacturers themselves agree with it. See Industry Study at p. VI-34.

²See News Release, American Mutual Insurance Alliance, March, 1977.

³It should be noted that in the product area of vaccines, most so-called "strict liability" claims are in fact based on negligence. See Volume IV, Legal Study at p. 105.

⁴An example of a trade association captive is Oil Insurance, Ltd., a Bermuda corporation organized to insure its oil company owners against losses from primarily oil spills.

⁵It has been estimated, for example, that a captive insurance company incorporated in Bermuda will incur the following operating costs annually: \$75,000 - \$100,000 to maintain an office with one manager and secretary; several thousand dollars for fees paid to local residents to join the Board of Directors; legal and accounting fees; and \$1,000 annual Bermuda license fee. There are management companies in Bermuda which can eliminate the need for an independent captive staff. They charge approximately \$13,000 - \$15,000 per year for processing an annual volume of three or four policies. "Management Firms Can Lower Captive Costs," Business Insurance, p. 30 (3/7/77).

⁶Two states may impose strict liability on the insurer in this instance. See Crisci v. Security Ins. Co., 66 Cal. 2d 425, 431, 426 P.2d 173, 177, 58 Cal. Rptr. 13, 17 (1967) (dictum); Rova Farms Resort, Inc. v. Investors Ins. of America, 65 N.J. 474, 501-502, 323 A. 2d 495, 510 (1974) (dictum).

⁷For example, see Alt, "Reed Shaw Develops Unusual Captive for Alaskan Vessels," Business Insurance 2 (4/18/77) (discussing the Hull Insurance captive that is to be privately formed with a potential of providing coverage for 15,600 vessels).

⁸See also article, LeRoux, "Colorado Gives Okay to 13 New Captives," Business Insurance p. 7 (2/21/77).

⁹See Burge, "Captives: Bermuda, Colorado, Taxes and Beyond," Business Insurance, 10 (4/10/72); Bartlett, "Creating the Captive Insurance Company," 54 Chicago Bar Record 63 (1972); Saggese, "Utilization of a Foreign Captive Insurance Corporation," 1976 Ins. L. J. p. 525.

¹⁰A practice that is forbidden under the law of the one state that charters captives. See Colo. Rev. Code Sec. 10-6-104 (1).

¹¹One possible exception is the deduction allowed for bad debt expenses. See Int. Rev. Code of 1954 Sec. 166. These reserves are allowed so that companies can spread the impact of bad debt expenses over several accounting periods in order to avoid distortions in income. The deductions are limited to amounts actual studies show to be appropriate.

¹²See Piehler, "Designing, Manufacturing and Testing the Reasonably Safe Product," The Seventh Annual Product Liability Prevention Conference, 151-152 (N.J. Institute of Tech. 1976); Rodda, "How Manufacturers Can Reduce the Number and Size of Costly Product Liability Suits" Business Insurance (9/6/77); Products Liability -- Corporate Awareness (Defense Research Institute Pamphlet, 1975).

¹³"Among the small firms only 19 percent had such programs, while 39 percent of medium-sized and slightly over half of the large firms had product liability prevention programs." See Industry Study at p. VI-33.

¹⁴Our Industry Study's telephone survey found that 46 percent of the smaller firms with insurance did not receive loss prevention services compared to 24 percent of the firms with annual sales over \$100 million. See Industry Study at p. VI-33.

¹⁵See Block, Plansafe International, presented at the First World Congress on Product Liability, January 20, 1977 (discussing a method whereby a lid on a coffee percolator could be secured in situations where the device was inadvertently tipped over).

¹⁶See e.g., American Mutual Insurance Alliance Fact Sheet No. 5 (1976).

¹⁷See also letter to the Task Force from Dennis R. Connelly, Associate Counsel, American Insurance Association (dated 10/13/76) (expressing concern about this problem).

¹⁸The most practical difference would arise if the claimant's damages were greater than the manufacturer-insured's coverage. Then there would be a decided advantage in being able to hold the insurer responsible.

¹⁹Tex. Ins. Code art. 5.76-1 (1976); Ore. Laws. ch. 585 (1975).

²⁰E.G., a representative of the National Tool, Die and Precision Machinery Association has testified that 23 percent of the association's membership are proceeding to operate without product liability insurance. See Hearings before the Senate Select Committee on Small Business, 94th Cong. 2d Sess. (9/10/76).

Part VI

Alternative Methods for Compensating
Consumer Product Injuries:

Herein no-Fault Compensation Systems and Arbitration

ALTERNATIVE METHODS FOR COMPENSATING CONSUMER PRODUCT INJURIES: HEREIN NO-FAULT COMPENSATION SYSTEMS AND ARBITRATION

INTRODUCTION TO THE GENERAL PROBLEM

Some members of the Working Task Force, law professors and others have suggested that the current product liability insurance problem will not be permanently solved either by approaches that attempt to lubricate the mechanism by which insurance is provided (Part V) or by rule changes that will modify the impact of the tort-litigation system on manufacturers (Parts II and III). These persons argue that the tort-litigation system itself should be abolished in the area of consumer product injuries and that a no-fault compensation system should be adopted in its stead.

Others have contended that it is only necessary to overhaul the fact-finding process, not the entire system. They suggest that the product liability problem would be substantially eased if an arbitration procedure replaced the jury system as the primary method for resolving product liability disputes. In this section we will discuss both product liability no-fault compensation systems and the use of arbitration.

NO-FAULT COMPENSATION SYSTEMS

Introduction to the Problem

We have already discussed the use of a no-fault compensation system for the workplace area. At pp. 105-112 we show that there might be substantial transaction-cost savings if Worker Compensation were made the sole source remedy for a worker injured by a product in the workplace. We suggested that some of these cost savings might, however, be offset to some degree because a mechanism would have to be devised whereby the manufacturer of a product that injured a worker contributed to his award and did not lose the incentive to produce a safe product.

Here we will be discussing the use of no-fault compensation systems as they apply to consumer product injuries.

When we began our study the idea that no-fault compensation systems might be utilized in the area of product liability seemed remote. Over time, however, we observed that most of the substantive law proposals that we received called for cutting back on the rights of consumers to recover under the tort-litigation system. See pp.1-84 above. Obviously, when liability under the tort system is cut back, it leads to a situation where some persons who are seriously injured by products are uncompensated for their losses. Even if some of the tort modifications were justifiable, the social implications of leaving a victim of a product-related accident without compensation might meet with serious resistance from consumer groups. This is one reason why we had a growing appreciation of the need to explore more carefully the utilization of no-fault compensation systems for product liability.

Our contractor reports only undertook a limited investigation of the area. See Volume VI, Legal Study at pp. 98-142; Insurance Study at pp. 4-82 - 4-85. See also Industry Study at pp. VII-8 - VII-11 (suggesting further lines of study). For that reason our own analysis must be somewhat limited; nevertheless, we hope to suggest some of the benefits and shortcomings of no-fault as applied to product liability as well as indicate areas where further study would be useful.

No-Fault Systems--A Description

A number of major alternative approaches to the tort-litigation system have been grouped under the rather ambiguous heading "no-fault plans." These plans differ in many significant ways. One of the most important variables is the extent of government involvement--a matter of sufficient importance to discuss in a separate section at p. 209. Nevertheless, there are six indicia that are part of most no-fault plans that have been proposed to date. In the field of product liability these would probably include the following:

1. Persons injured by a product who were protected by the system would have a right to recover damages regardless of their fault.

2. The collateral source rule, to some extent, will not apply.
3. Recovery for pain and suffering is abolished.
4. Persons injured by products would recover at least their out-of-pocket medical costs. They would also recover their actual loss of earnings or a percentage thereof.
5. Persons entitled to benefit from the system would, at least to the extent of the system's protection, be barred from suit against the manufacturer of the product.
6. The tort-litigation system returns when damages reach a certain level or when an injury of a certain type occurs.

We will briefly discuss each of these six indicia.

Persons Injured by a Product Who Were Protected by the System
Would Have a Right to Recover Damages Regardless of Their Fault

As indicated in Chapter II, under the tort-litigation system today persons injured by defective products often can recover regardless of their own fault. In some situations, however, their right to recover may be either reduced or eliminated. The fact pattern where this occurs usually involves an unreasonable assumption of risk on the part of the user or an unforeseeable misuse of a product.

As we will discuss in more detail at p. 213, if a legislature were to adopt a no-fault compensation system in the product liability area, it probably would have to expand the rights of product users to recover and develop more certainty of recovery. Otherwise there would be no "trade-off" for their giving up their right to recover for damages for pain and suffering, etc. The only situation where it is clear that a product user should be barred by his own fault based conduct is when he intentionally injured himself.

The Collateral Source Rule, to Some Extent, Will Not Apply

One method whereby no-fault systems may bring about cost savings is by modifying the collateral source rule. As indicated in our discussion at pp. 70-74 above, some parties have suggested that this rule be modified within the context of the tort-litigation system.

Under a no-fault compensation system the arguments supporting a modification of this rule are stronger: the manufacturer would agree to expand the general scope of his liability in exchange for the modification.

Nevertheless, when the rule is modified it allows the manufacturer of a product that causes an injury to externalize the cost of that injury: some other resource unconnected with the manufacturer (collateral to it) will pay for it.

With respect to the extent of the modification, our discussion about the collateral source rule at pp.56 is relevant. That discussion suggests that the least objectionable alteration of the collateral source rule is to modify it in cases where public resources have already reimbursed the victim.

Assuming that the rule is modified or abolished, a second question arises: whether the source that supplied the payment to that party (e.g., a Worker Compensation insurer) should be permitted to bring a subrogation action against the no-fault product liability insurer.

Unfortunately, our independent contractors did not discuss this issue. We are aware, however, of the broad policy tensions involved. If subrogation is not permitted, this may allow a manufacturer to externalize a good deal of its injury-creating activity. On the other hand, if subrogation is permitted, it will bring back a portion of the transaction costs that no-fault insurance is supposed to eliminate.

Recovery for Pain and Suffering is Abolished

As indicated in our discussion about damages for pain and suffering at p.64 above, preliminary statistical evidence

gathered by the Insurance Services Office suggests that a considerable proportion of product liability awards is composed of damages for pain and suffering. No-fault advocates contend that payments for pain and suffering are wasteful and that injured persons would be willing to forgo them in exchange for a system that provided prompt recovery for their out-of-pocket losses. We have not conducted any opinion surveys that test whether this assertion is true.

We do know that the Insurance Services Office data suggest that a substantial savings in insurance costs might be obtained if payments for pain and suffering were eliminated. See ISO Survey, Detailed Analysis, p. 71. Persons considering a cost-benefit analysis of no-fault should review the final results of the ISO Closed Claim Survey in order to obtain a more precise estimate of the cost savings that would occur if damages for pain and suffering were abolished.

As indicated at pp.64-65 above, some believe that damages for pain and suffering represent a true economic cost, e.g., a person would pay to avoid pain and suffering. For those individuals, the elimination of pain and suffering damages does not represent cost efficiency; rather, it is the elimination of a meaningful element of product liability damages. See Volume VI, Legal Study at p. 134.

Persons Injured by Products Would Recover at Least Their Out-of-Pocket Medical Costs. They Would Also Recover Their Actual Loss of Earnings or a Percentage Thereof.

One area in which no-fault systems are alleged to be more efficient than the tort-litigation system is in the area of damages. Medical costs and loss of earnings can both be reimbursed on an actual outlay basis. It is relatively easy (as compared to the tort-litigation system) to utilize a periodic payment system. See p.80. This approach will tend to ensure that a person only recovers damages he or she actually suffers as a result of the accident. Potential savings will result over the tort-litigation system because an adjustment can be made for the fact that the award is not subject to Federal taxation. Also, windfall awards for future loss of earnings will be avoided. On the other hand, there are situations under the tort-litigation

system where a jury underestimates how long an injured party will live. A no-fault system can correct that by utilizing a periodic payment system.

No-fault systems also reduce costs by paying less than the individual's full loss of wages. This practice was used in state Worker Compensation systems. As indicated at pp.83-90, dissatisfaction with the system arose because payments were considerably less than the injured party's actual wages (below 50 percent). The same dissatisfaction would be likely to arise under a product liability no-fault system if injured persons were subject to unreasonable discounts with respect to their lost wages or unreasonable maximum limits. See also Palmer, Accident Compensation in New Zealand: The First Two Years, 25 Am. J. Comp. L. 1, 29-30 (1977) (showing how loss of earnings payments under the New Zealand Plan may not keep pace with inflation).

Persons Entitled to Benefit From the System Would, at Least to the Extent of the System's Protection, be Barred From Suit Against the Manufacturer of the Product

Under a "pure" no-fault product liability system, a manufacturer would be shielded from all suits that stemmed from injuries caused by his products. He would thereby avoid litigation expenses and would also be untouched by any stigma that might arise from tort liability.

The strength of a liability shield would be diminished, however, if the person injured by a product were permitted by law to sue a party other than the manufacturer and if that party, in turn, could bring a claim against the manufacturer. This "end-run" problem has caused difficulties in the Worker Compensation field. See pp.88-89 above. It should be noted that certain statutory no-fault automobile plans do not have this feature--plaintiff retains his full common law rights, and the only benefit given to the defendant is to have the amount of no-fault payments that he has already paid plaintiff deducted in the law suit.

The statutes (called "add-on" no-fault laws) have been criticized as "wasteful" by no-fault purists. See O'Connell, Operation of No-Fault Auto Laws: A Survey of Surveys, 56 Neb. L.

Rev. 23, 44. Compare Clark and Waterson, No-Fault in Delaware, 6 Rut. Cam. L. Rev. 225 (1975).

The Tort-Litigation System Returns When Damages Reach a Certain Level or When an Injury of a Certain Type Occurs

This is not necessarily an indicia of a no-fault system. For example, it is not part of most Worker Compensation laws. On the other hand, it is built into every automobile no-fault plan that has been enacted by state legislators. The point where the tort-litigation system returns is often called the tort "threshold."

There have been at least three reasons why thresholds have been included in no-fault automobile systems:

First, the system is more likely to survive as an economic entity if it is not subject to high-level claims.

Second, in the automobile area, data showed that a very high percentage of claims were under \$10,000. Therefore, a system with a limitation at that level was thought to be effective in reducing the transaction costs that arose from the tort-litigation system. As has been indicated elsewhere in this report, some sources suggest that it is the larger (\$10,000+) claims that have caused a problem in the area of product liability. See ISO Survey, Detailed Analysis, pp. 61-75 (1976).

Third, as a matter of public policy, some state legislatures decided that some injuries are so severe (either because of the amount of loss or the type of injury) that persons who suffer them should not lose their full common law rights. For example, Michigan, which has one of the highest automobile economic thresholds in the United States, allows injured persons to bring a common law tort claim when they suffer "permanent serious disfigurement" as the result of an automobile accident. See Mich. Comp. L. Ann. Sec. 500.3101 (Supp. 1976).

Preliminary evidence from the area of automobile no-fault suggests that when thresholds are set too low, no-fault systems lose some of the cost efficiency they were supposed to provide. See O'Connell, Operation of No-Fault Auto Laws: A Survey of Surveys, p. 33, cited above; Thomas, "Blameworthy Policy -

Everyone Is Paying Heavily for No-Fault Insurance," Barron's, p. 3 (5/30/77).

The Government's Role in a Product Liability No-Fault Compensation System

Our contractors did not focus on the important question of what the government's role might be in the operation of a no-fault product liability system. There are, of course, an infinite variety of approaches and only the basic ones can be outlined here.

A Monitor of a Private Insurance System

Under automobile no-fault as it operates in all states (at present), basic responsibilities for administering the system have been given to the State Insurance Commissioner--no new administrative structure has been created. When there have been disputes over legal and factual issues within the system (e.g., has the threshold been reached?), these conflicts have sometimes been resolved by the courts. See Coburn, Recent Developments in No-Fault Automobile Insurance Literature, VI The INCL Brief 6 (1/77).

On the other hand, in the area of Worker Compensation, an administrative board has been given initial responsibility to resolve factual and legal disputes that may arise between employer and employee. Although we believe the issue deserves further study, it seems likely that many factual and legal disputes would arise under a product liability no-fault system. Therefore, the Worker Compensation system approach might be beneficial in a product liability no-fault system. Some type of administrative mechanism to resolve disputes apart from the court system may be necessary if the no-fault system is, in fact, to generate cost savings. On the other hand, if the system is structured in such a way that will limit factual and legal disputes (see discussion at pp.218-220), it may be unnecessary to establish a separate mechanism for resolving them.

A Government-Operated No-Fault System-The New Zealand Plan

If the Government were to operate a product liability no-fault system, it could follow the Worker Compensation analogy which exists in some states and substitute itself for a private insurance company. A new administrative agency would have to be set up to establish rates and hear claims. It has been suggested to the Task Force that if it were deemed necessary to pursue that approach, serious consideration should be given to broadening the scope of the mechanism beyond the area of product liability.

In that connection, the Task Force has been informed that a broad-scale no-fault plan has been operating in New Zealand since April 1, 1974. All personal injuries that occur in New Zealand, not merely injuries caused by products, are "covered" by the system. The system is managed by a government-operated independent agency, the Accident Compensation Commission. This agency undertakes the primary role of resolving factual and legal disputes that arise under the system.

The system is financed by:

- A tax on drivers' licenses and automobile registrations. This is the revenue source for all claims based on automobile accidents.
- A tax on employers that is based on the number of employees and the extent of the work-related risks created by the enterprise. This is the source for all non-automobile related injuries suffered by employed persons in or out of their place of employment. It is probable that many product liability claims would be charged against this portion of the fund if the New Zealand plan were adopted in this country.
- General tax revenue. This source covers all non-automobile related injuries suffered by "non-earners."

The system achieves economy by limiting recovery along the lines set forth on pp. 206-207 above. Also, recovery for loss of earnings is sharply limited in most cases to 80 percent of actual earnings up to a maximum of \$200 per week. Our legal contractor

concluded that it was too early to appraise the operation of the New Zealand experiment. See Volume VI, Legal Study at p. 111. It did note, however, that this type of system might be necessary if product liability were to be placed under a no-fault package. In that regard, it observed that in product liability, disputes will almost certainly occur over which product (or whether a product) caused a particular injury. Under a pure product liability no-fault plan, these disputes would have to be resolved; under the New Zealand plan these types of questions become of less (or no) importance. See Volume VI, Legal Study at p. 106.

On the other hand, this basic benefit of the New Zealand system has a negative consequence. Since individual accidents are not traced to the particular product manufacturers who were at fault, those manufacturers can externalize the cost of injuries they create. The Task Force did not have the time or resources to explore this consequence or the adaptability of the New Zealand plan in the United States. For those who may be interested in pursuing the matter, we cite the following general sources on the plan:

Harris, "Accident Compensation in New Zealand: A Comprehensive Insurance System," 37 Mod. L. Rev. 361 (1974); Palmer and Lemons, "Toward the Disappearance of Tort Law--New Zealand's New Compensation Plan," 1972 U. Ill. L.F. 693; Palmer, "Abolishing the Personal Injury Tort System: The New Zealand Experience," 9 Alberta L. Rev. 169 (1971) and "Compensation for Personal Injury: A Requiem for the Common Law in New Zealand," 21 Amer. J. Comp. L. 1 (1973) and "The Accident Compensation Amendment" 1974, 6 New Zealand L. Rev. 299 (1975); Vennell, "The Scope of National No-Fault Accident Compensation in Australia and New Zealand," 49 Aus. L.J. 22 (1975). Franklin, "Personal Injury Accident Compensation in Australia and New Zealand," Striking Similarities," 27 Stan. L. Rev. 653. For a brief review of New Zealand's experience after a year under the plan, see "To Accident Victims New Zealand Offers--the Balm of Money," Wall St. J., Sept. 16, 1975, p. 1, col. 1. For a comprehensive review of the experience after two years, see Palmer, "Accident Compensation in New Zealand: The First Two Years," 25 J. of Comp. L. 1 (1977).

Alleged Benefits of a No-Fault Product Liability System

It Would Increase the Number of Cases in Which Persons Injured by Products Obtained Compensation

One criticism consumers might have about the current tort litigation system is that some persons do not recover or do not recover full compensation when they are injured by a product. See Chapter VI, p. 38.

With respect to this issue, our Insurance Study analyzed data from the Consumer Product Safety Commission. These data were derived from the NEISS consumer accident reporting system for three calendar years--1973 to 1975. The Industry Report "concluded that an average of 6.7 million [product-related] injuries were sustained annually by consumers over a period from 1973 to 1975." As indicated in Chapter VI, we have not been able to obtain a precise estimate of the number of product liability claims brought each year, but it appears to be less than 70,000. Even if our industrial contractor's estimate of the number of product-related injuries is high, there still appears to be a very great gap between the number of persons who are injured by products and those who file claims under the tort-litigation system.

The gap may result, in part, from cases in which persons sustain minor injuries. In that connection, an experienced attorney suggested at the First World Product Liability Congress that a lawyer does not have a sufficient economic incentive to represent a plaintiff with a product liability claim that is worth less than \$15,000. See Remarks of M. Belli: Proceedings, First World Congress on Product Liability, p. 177 (1977).

Even when claims are brought, there is no guarantee of success: the tort-litigation system is not one of absolute liability. Our Legal Study shows that the plaintiff still has the burden of proving that the product that injured him was defective. He is also subject to a number of defenses.

The Cook County Illinois Jury Verdict Survey as well as other sources indicates that plaintiffs recover in less than 50 percent of the litigated cases. In our Legal Study of 655 appellate cases, where the case was disposed of on the merits, the plaintiff prevailed in 51 percent of the claims. See Volume III, Legal Study at p. 85. While the ISO Preliminary Closed Claims Survey indicates that approximately 95 percent of the cases are "settled", which suggests that plaintiff obtains some compensation in those cases, it is unclear as to how often he obtains his full out-of-pocket loss. See ISO Survey, Detailed Analysis at 93.

A true no-fault product liability compensation system would provide greater assurance of recovery for persons who are injured by a product. As has been indicated, the system would probably have to provide recovery regardless of whether the product user was at fault. This system might have to allow recovery even if a product was not deemed "defective" under the present tort-litigation system. Thus, a person injured by an unavoidably unsafe pharmaceutical might be allowed a recovery of his out-of-pocket losses under a product liability no-fault system. Compare the present rule discussed at p.28. A no-fault system in the area of product liability would have to extend a consumer's right to obtain a recovery because the present tort-litigation system is a strict liability system. In that connection, where no-fault systems have substituted for the tort-litigation process in the past, they have replaced negligence law. For example, Worker Compensation represented a clear and decisive benefit to persons injured in the workplace, because prior to no-fault the worker had a very limited chance of recovery. Similarly, in the area of automobile compensation, data showed that prior to no-fault, many persons were unable to prove negligence or were subject to common law defenses.² By definition, a strict liability system is more favorable to the plaintiff than a negligence system. As has been indicated at pp.204-205, if injured persons were to give up their right to sue product manufacturers in exchange for a no-fault compensation system, they would, in turn, forgo certain rights, e.g., to recover for pain and suffering. Therefore, if there is to be a quid pro quo for injured parties' forgoing these rights, they will have to be able to recover when they misuse products. They also may have to recover in some situations where the product was not technically defective.

A recent lower federal court decision suggests that this quid pro quo may be required to render such an act constitutional. Cf. Caroline Environmental Study Group, Inc. v. Atomic Energy Commission, 41 F. Supp. 203 (W.N.C. 1977) (holding damage restrictions unconstitutional in the Price-Anderson Act). But Cf. Sparks v. Wyeth Lab, Inc., Civ. 431 F. Supp. 411 (W.D. Okla. 1977) (upholding elimination of jury trial in the National Swine Flu Immunization Program).

The Working Task Force representative from the Federal Insurance Administration has indicated that an injured party's path to recovery would also be facilitated under a product liability no-fault system if that system were based on a first-party approach. See Memorandum from Howard B. Clark, Special Assistant to the Administrator to the Task Force (10/21/76). Mr. Clark suggested that a product liability no-fault system could be given all of the attributes of a first-party system by providing in the statute that the accident victim is a third-party beneficiary of any contract of insurance between the insurer and named insured. See p.219, below.

In sum, in order for a shift to a no-fault system to be effective, the system would have to increase the likelihood that individual product victims would receive some compensation for their losses.

It May Reduce Duplicate and Wasteful Compensation and be More Efficient

It has been argued that a product liability no-fault system will be able to pay more claims because it will substantially reduce "needless" costs that are part of the tort-litigation system.

In that connection, it has been estimated that out of every product liability premium dollar paid into the liability insurance system, only 37.5 cents is paid to the victim. See O'Connell, An Alternative to Abandoning Tort Liability: Elective No-Fault for Many Kinds of Injuries, 60 Minn. L. Rev. 501, 511, and Notes 25-30 (1976). The remaining 62.5 cents goes for general overhead (30 cents) and claims administration costs (32.5 cents). See also Insurance Study at p. 2-4. Insurance

commissioners from Massachusetts, Michigan, New York, Pennsylvania, Texas, and Virginia³ interviewed by the Task Force staff believed that Professor O'Connell's estimates were quite accurate. Preliminary data from the ISO Closed Claim Survey suggest that Professor O'Connell's estimate of the cost of administering product liability claims might, in fact, be low: according to the ISO survey, for each dollar of loss paid, there was an additional 42 cents of expense incurred by the insurance company in defending the claim. See ISO Preliminary Closed Claim Survey, Capsule Analysis, p. 1 (1976). A more precise estimate will be available after ISO completes its survey.

By way of contrast to O'Connell's figures, it should be noted that the National Commission on State Workman's Compensation Laws estimated that 65 percent of every Worker Compensation premium dollar went toward compensating the victim of an accident. See Report of the National Commission on State Workman's Compensation Laws, pp. 112-113 (1972). A more recent study indicates that only 52 percent of the premium dollar goes to the claimant as benefits. See "Workers' Compensation: Is There a Better Way?," at 27 (1977). Our insurance contractor analyzed permissible pure loss ratios in both the Worker Compensation and the general liability area and noted that insurance carriers anticipate paying 15 to 20 cents more of each premium dollar earned to claimants on Worker Compensation policies than to claimants under general liability insurance. See Insurance Study at p. 4-74.

It has been strenuously argued to the Task Force that a product liability first-party system would lower transaction costs with more money from the premium dollar going to the accident victim. First, it is said that it will be an exceptional case where a plaintiff's attorney will be needed. Assuming this is true, there will be savings based on the elimination of the attorney's contingent fee. Similarly, defense costs would be substantially reduced. While no-fault advocates concede that disputes will arise, they claim that they will better lend themselves to arbitration and other less costly means of dispute settlement than a full-blown jury trial.

Similar claims had been made for no-fault systems in the area of automobile accidents. They were supposed to result in more of the premium dollar going to the automobile accident victim.

Also, some no-fault advocates suggested that such a system would reduce overall insurance costs. Our contractors did not conduct a survey as to whether no-fault has fulfilled these aspirations in the area of automobile accidents; we have had to rely on secondary sources for that information.

Professor O'Connell's review of secondary sources indicates that overall automobile personal injury insurance costs have not generally been lowered by no-fault. On the other hand, he notes that in Michigan, a state with a relatively high economic threshold, more of the premium dollar flows to the automobile accident victim than was true under the fault system. See O'Connell, Operation of No-Fault Auto Laws: A Survey of Surveys 56 Neb. L. Rev. 23 (1977). See also Thomas, "Blameworthy Policy - Everyone Is Paying Heavily For No-Fault Insurance," p. 3 (5/30/77). This has led no-fault advocates to stress that the problem with most state no-fault laws is not that they are worse than the tort system: it is said that the failures in no-fault auto stem from the fact that legislators compromised with tort-litigation system advocates by passing bills which set too low a threshold. The recent study of secondary sources conducted by the Department of Transportation reported this conclusion as a matter of "observer belief", not as a conclusion to be drawn from data. See State No-Fault Automobile Insurance Experience 1971-1977, p. 77 (D.O.T. 1977).

We observe that no-fault automobile laws have not put an end to appellate litigation. See Coburn, Recent Developments in No-Fault Insurance Litigation, The INCL Brief 6 (1/77) (discussing cases focusing on threshold limitations, a person's right to benefits and the extent of those benefits, an insurer's right to reimbursement and subrogation). This situation might be symptomatic of more litigation at the trial level.⁴

It is the Task Force's understanding that aside from the recent DOT survey, more detailed information about the operation of state no-fault laws will soon become available. We suggest that those who may consider no-fault in the product liability area review those data very carefully before coming to a conclusion about the cost effectiveness of no-fault systems.

Assuming that a properly constructed high threshold no-fault plan in the area of automobile accidents might reduce overall insurance costs and would provide a greater return of the premium dollar to the accident victim, it is uncertain whether those benefits would result from a no-fault plan in the field of product liability. As will be detailed in the next section, the potential for reducing costs in the area of product liability is diminished because of problems of causation and coverage.

The second area where cost saving takes place has already been mentioned--it is in the area of damages. By eliminating damages for pain and suffering, modifying the collateral source rule, allowing a recovery for only a percentage of the claimant's loss of wages, and eliminating punitive damages, cost savings can be achieved. Also, no-fault systems are more readily adaptable to a periodic payment system (see p.206) than the tort-litigation system. The benefits of such a system are discussed at p.64. Finally, no-fault systems are also easier to mesh with rehabilitation programs; it has been suggested to the Task Force that this has the potential of reducing overall insurance costs.

Some Major Problems With the Use of First-Party No-Fault Systems in Product Liability Cases

Our insurance contractor's interviews with more than 100 members of the insurance industry revealed a uniform opinion: none believed that either a general no-fault or an elective no-fault system (discussed below) could be implemented successfully in the area of consumer products. See Insurance Study at p. 4-82. Our legal contractor concluded that the product liability problem did not "justify so drastic a remedy." See Volume VI, Legal Study at p. 101. What are the major problems with product liability no-fault and are there any potential resolutions of those problems? We will discuss some that have been brought to our attention below.

No-Fault Systems Achieve Part of Their Cost Reduction by Not Paying for Some Losses

This problem may arise in all no-fault plans. As has been indicated, no-fault systems achieve cost reduction, in part, by eliminating compensation for pain and suffering and by modifying

the collateral source rule. Our discussions about modifying those rules within the context of the tort-litigation system show that there are strong reasons for not tampering with them. It is, in fact, arguable that damages for pain and suffering actually compensate a real loss. Also, modification of the collateral source rule would permit the defendant the perhaps "unfair" advantage of externalizing the cost of an injury for which he was responsible.

Perhaps of greater concern is that most no-fault systems place a limit on recoveries of loss of wages and restrict death benefits. Thus, the systems do not, in fact, compensate for full out-of-pocket losses. Experience in the Worker Compensation area suggests that this type of limitation may be arbitrary and that once it is rooted in the law, it may be hard to adjust. See also Palmer, Accident Compensation in New Zealand: The First Two Years, 25 Am. J. Comp. L. 1, 26 (1977).

The basic reply to these concerns is that a value judgment is being made: by cutting out "non-essential" payments, the system can pay more claims at the same, or possibly lower, overall costs.

There is a Problem as to How Coverage for a No-Fault System Will be Provided

Automobile no-fault plans rely heavily on what is called first-party or accident insurance: when driver A's and driver B's vehicles collide each party collects from his own insurance company. Thus, automobile no-fault laws represented a shift from a liability insurance system to an accident insurance system. This change was greatly facilitated by the fact that many drivers already had insurance. See O'Connell, Ending Insult to Injury: No Fault Insurance for Products and Services, at 71 (1976).

This situation would not occur in the area of product liability. The class of potential product liability victims (unlike automobile owners) do not have liability insurance. Moreover, no one has suggested to the Task Force that potential victims should be required to insure themselves against product-related accidents. The insurance burden under no-fault would

still fall on the product manufacturer. See Wade, Working Task Force Symposium at p. 11.

A product liability no-fault plan could require manufacturers to purchase liability insurance along the line of Worker Compensation insurance. See Henderson, "Should Workmen's Compensation be Extended to Non-Occupational Injuries," 48 Tex. L. Rev. 117 (1969). On the other hand, it has been suggested to the Task Force that a no-fault product liability system will work more smoothly if the manufacturer purchases accident insurance with potential product-related accident victims named as first-party beneficiaries.

Howard Clark of the Federal Insurance Administration, who made this suggestion, developed it along these lines:

The policy between the insurer and insured manufacturer could be required to provide explicitly that the accident victim becomes a third-party beneficiary to whom the insurer is directly obligated for the first-party benefits provided by the policy. . . Legal provision could be made for an insurer to become liable for penalties and attorney's fees for vexatious refusal to pay or delay in paying a valid claim. Moreover, at least as to such penalties, it could be provided that the insurer could not include the amount thereof in its loss experience upon which rates are predicated. In short, such penalties would come directly out of the insurer's surplus. Thus the accident victim, as an express third-party beneficiary, would have the same rights in respect to the reparation benefits provided by the policy as if he were the named insured and had himself paid the premium, as in a very real sense he will have done. See Memorandum to the Task Force from Howard B. Clark, Special Assistant to the Administrator of the F.I.A. (10/21/76).

Under any no-fault product liability system a decision must be made as to whether all manufacturers will be required to obtain coverage. If a decision is made in the affirmative, the system must handle most of the problems discussed in our section on mandatory product liability insurance. See pp.191.

On the other hand, if manufacturers are not required to obtain insurance, a system would have to be devised where they could qualify as self-insurers. A manufacturer would have to furnish evidence of financial responsibility to pay first-party claims, and criteria would have to be developed that would enable an Insurance Commissioner's Office to evaluate that evidence quickly and easily.

In sum, those formulating a no-fault product liability system must resolve basic questions about the type of insurance that will be utilized and whether manufacturers will be required to purchase that insurance. We conclude that this area is deserving of further study.

There are Difficulties in Fixing the Scope of Coverage and in Resolving Causation Problems Under a Product Liability No-Fault System

Scope of coverage problems

As has been suggested, product liability presents insurance coverage problems that are far more severe than those that have arisen under automobile no-fault and Worker Compensation. In automobile no-fault, coverage may extend to injuries "arising out of the ownership, maintenance or use" of a motor vehicle. In Worker Compensation, coverage may extend to "accidents occurring during the course of employment." These coverage descriptions have caused problems of interpretation in both the automobile no-fault⁵ and the Worker Compensation areas⁶, but these controversies would probably be few in number as compared to a situation in which similar wording was used in the field of product liability.

One possible approach would be to allow coverage for all "injuries caused by the use of a product." While we have no empirical data on the point, a common sense judgment suggests that such wording might bring about so many claims that the system could not afford it. If coverage were broadly defined, a determination must be made whether insurers would be willing "to undertake the development of such coverages and filing of rate application. . ." See Industry Study at p. VII-11. On the other hand, as has been indicated, if coverage restrictions are drawn

too tightly, the consumer may have received little or no gain even though he has relinquished his rights under the tort-litigation system. See Caroline Environmental Study Group, Inc. v. Atomic Energy Commission, 431 F. Supp. 203 (W.N.C. 1977) (discussing strict liability and the Price-Anderson Act).

There would appear to be at least three absolutely necessary limitations on the scope of product liability no-fault coverage. First, the system could not cover claims where an individual intentionally injured himself with the product. Second, the system is unlikely to be able to absorb claims involving injuries that stem from an intrinsic risk of the product, e.g., if a person cuts himself with a knife or burns his finger on a stove. Obviously, cases could arise where there was a dispute as to what was or was not an intrinsic risk. Finally, there would have to be some limit with respect to the age of a product: otherwise, insurers would have to base rates on the length of time a product could possibly cause harm.

More controversial areas of limitation concern whether unforeseeable misuses should be covered and whether a manufacturer's liability should be limited to situations where the product would be deemed "defective" in construction or design. If these coverage restrictions were included, the need to have a neutral forum to resolve them would arise. Even if this were done by an arbitration system, it would bring back many of the costs no-fault is supposed to eliminate.

Causation problems

Our legal contractor observed that problems dealing with causation may be somewhat higher in product liability than in Worker Compensation or automobile no-fault cases. The problems are at least three-fold.

First, as our legal contractor observed, consumer product injuries may occur in relatively private places. This may create a situation where there will be a need for a very careful evaluation of proof as to whether a particular manufacturer's product caused an accident. See Volume VI, Legal Study at p. 108. Also, the situation may tempt some individuals to assert fraudulent claims.

Second, many products are composed of a number of component parts manufactured by a wide variety of sources. If manufacturers of component parts are to be held responsible for latent defects in their products, a system would have to be devised to make determinations of that kind. This, too, could add to transaction costs that the system would have to bear.

Third, there may be causation problems between product liability no-fault and other areas of tort law. For example, a question may arise as to whether a death or injury was caused by a defective medical device or by medical malpractice; by a defective automobile or by negligent driving. Cf. Industry Report at p. VII-10.

Resolving coverage and causation problems through modified no-fault plans

Persons who have studied product liability no-fault systems have appreciated the problems caused by the coverage and causation issues and have tried to develop ways to avoid them. To date, the plan that has had the most exposure in the product liability literature is one developed by Professor Jeffrey O'Connell of the University of Illinois. He calls his approach "elective no-fault." The plan was first presented in its complete form in a book entitled Ending Insult to Injury: No-Fault Insurance for Products and Services (1975). Subsequent to the publication of the book, a statutory version of his plan was introduced in the Minnesota State Senate. Professor O'Connell's cure for the coverage and causation problems is to allow manufacturers to elect to place certain risks that may be caused by their products under a no-fault system. This approach would diminish the likelihood of disputes over coverage and causation issues because the manufacturer would be very specific about the risks he was placing under no-fault. Our legal contractor considered a number of criticisms of this plan--we will summarize the principal ones here.

First, it is said that it is unreasonable to grant significant classes of potential tortfeasors the power to formulate rules of liability which will govern them. It has been suggested that this power is subject to abuse. This could occur if a manufacturer placed only high exposure risks under the no-

fault system and left all other risks under the tort system (e.g., if a manufacturer of pharmaceuticals selected no-fault coverages for illnesses caused by "foreign matter in his product"). Abuse could also arise if a manufacturer carefully selected monetary thresholds that would deter the bringing of serious tort claims (e.g., a manufacturer of a power tool who knows that many claims arise in the \$40,000 to \$50,000 range might elect to be covered by no-fault up to \$30,000). This might thwart the bringing of any claims in the \$40,000 to \$50,000 range because the monetary incentive for lawyers to undertake the expensive process of trying a product liability suit would be significantly reduced.⁸

Professor O'Connell suggested to the Task Force that the State Insurance Commissioners' Offices could protect consumers from unreasonable no-fault elections on the part of manufacturers. See Working Task Force Symposium at p. 133. Nevertheless, interviews with representative insurance commissioners (from Massachusetts, Michigan, New York, Pennsylvania, Texas and Virginia) strongly suggest that the insurance commissioners themselves believe that their offices and administrative bodies are not equipped to review these matters.⁹

The Working Task Force member from the Federal Insurance Administration has stated that unless some method is developed to eliminate this "adverse selection" factor, the problems inherent in the approach are "insuperable." See Memorandum of Howard B. Clark, Special Assistant to the Administrator, Federal Insurance Administration, to the Task Force (10/21/76).

Although O'Connell's plan might be economically advantageous to manufacturers, they appear to have been unresponsive toward it. Some of them are concerned that they would be inundated with claims even under an elective no-fault approach. See Product Liability, A MAPI Survey 29-30 (1976).

Professor O'Connell has suggested that if manufacturers were concerned about a potential flood of claims, they could use a "stop loss" technique. See Working Task Force Symposium at p. 132. They would agree to pay for injuries on a no-fault basis up to a given amount contained in their reserve funds. Of course,

if manufacturers were shrewd in exercising this option, it would merely fuel the adverse risk factor discussed by the Working Task Force representative Clark.

Finally, it has been strongly argued to the Task Force that since an elective no-fault system permits some manufacturers to operate under no-fault and others to reject it, and others to adopt it "to a degree", the resulting confusion would be unlikely to result in the lowering of insurance costs for any participant. See Volume VI, Legal Study at p. 109-110; Insurance Study at p. 4-84.

In sum, at this point elective no-fault does not appear to have solved the coverage or causation problem without creating other difficulties.

A more consumer-oriented elective no-fault approach has been designed by a New York attorney, Warren Freedman. Under his plan, a person who could substantiate that he was injured by a product (when used in its intended way) could "elect" to forgo his common law rights and receive his out-of-pocket losses up to a maximum of \$5,000. If the injured party's damages exceeded that amount he would have to resort to binding arbitration. Mr. Freedman believes that his plan would cut down on "friction costs" inherent in the tort-litigation system, would resolve coverage problems and would preserve consumers' rights.¹⁰

While this approach avoids the potential anti-consumer aspects of the O'Connell Plan, it might result in manufacturers' being flooded with small claims and also fraudulent ones. The plan is also subject to the same adverse risk selection factors that affect Professor O'Connell's plan. Persons with "shaky" claims would take the no-fault option, others would favor a resolution under the tort-litigation system. Due to these problems, this approach would not appear to be one that would ultimately reduce overall costs; however, we have no empirical evidence on this point. We do know that preliminary ISO data suggest that the product liability problem arises from large, rather than small claims. The Freedman plan does not address large claims.

In sum, the coverage and causation problems are perhaps the greatest ones that make product liability less subject to no-fault treatment than some other areas of the law. Modified no-fault plans that address these problems appear to bring about other difficulties. A no-fault system would probably have to provide broad coverage and have a mechanism available to resolve disputes that developed over coverage or causation issues.

No-Fault in the Area of Product Liability May Diminish
the Use of Product Liability Prevention Techniques

It has been argued to the Task Force that the substitution of a no-fault system for the tort-litigation system in the area of product liability may adversely affect the law's power to encourage the manufacture of safe products. As we have noted in our Briefing Report (at p. 10) and herein, one of the few positive impacts of the current tort-litigation system is that it has caused both large and small companies to devote more resources to product liability prevention techniques. See p. VI-47.

While there is a school of economic thought that suggests that the current product liability insurance problem has placed too much of a burden on manufacturers to implement product liability prevention techniques (it is said that the system ignores the fact that the user or consumer is sometimes the most "efficient accident cause avoider"), this position runs counter to today's strong social policy trend that seeks to protect the consumer in spite of his own carelessness.

Would the implementation of a no-fault compensation system with its reduced damage awards diminish present tort law incentives for a product liability risk prevention?

While we have no data on the point, it would seem that this result is more likely to occur in the field of product liability than it is in the automobile accident area. In the latter case, individual drivers have a strong self-interest in driving safely. They also may face an immediate application of the criminal law if they violate the rules of the road. As Judge Richard Marcus noted in the Working Task Force Symposium, the area of product liability is quite different from the automobile situation because the manufacturer (unlike the driver of an automobile)

usually does not risk personal injury from his unsafe products--that risk falls upon the consumer. See Working Task Force Symposium at p. 143.

On the other hand, Professor O'Connell has suggested that since the manufacturer may have to pay more victims under no-fault (albeit less damages to each), he still has an incentive to make his product safe. See O'Connell, Ending Insult to Injury: No-Fault Insurance for Products and Services at pp. 141-144 (1975).

We have not been able to test whether this assumption is valid. It would appear to depend, in part, on whether the no-fault system placed the true cost of accidents on manufacturers of defective products. Of course, this goal is only likely to be achieved if product liability no-fault insurers have to reimburse other insurers who have already compensated persons injured by defective products. As this would bring transaction costs back into the system.

Also, if a system could be developed whereby first-party product liability no-fault insurance were experience-rated, this, too, might help preserve tort law incentives to produce safe products.

Perhaps the heart of the problem is that those who have proposed no-fault systems concentrate on the goals of providing compensation for accident victims and reducing transaction costs. As a result, no-fault systems may not have proper economic incentives to bring about accident reduction. See Volume VI, Legal Study at p. 123.

No-fault systems may also diminish the deterrent effect of tort law because they are likely to shield the reckless defendant from tort suits. Also, punitive damages are likely to be eliminated. These consequences flow from the need to eliminate "discretionary" decisions in the context of a no-fault system--i.e., having an independent tribunal determine whether defendant conduct was "reckless" or merely negligent.

Criminal law (as it is presently structured) may be an inadequate substitute for tort law in the area of product

liability. In that regard, our Legal Study observed that it is less likely that there will be criminal law inquiries into the conduct of manufacturers, as compared to persons who violate traffic laws. See Volume VI, Legal Study at p. 109. The representative to the Working Task Force from the Federal Insurance Administration suggested that one way of continuing the deterrent spur of tort law within a no-fault product liability system is to deem manufacturers

"liable [for] a tort fine for deliberate violation of a statutory standard [that results] in injury, for aggravated types of willful or wanton misconduct or failure to maintain the required security. It could be further provided that, in any such event, it would be held contrary to public policy to provide insurance against tort fine liability. . . ." See Memorandum of Howard B. Clark, Special Assistant to the Federal Insurance Administrator, to the Interagency Task Force on Product Liability (dated 10/21/76).

Neither our contractors nor our staff have developed a working model as to how a "tort fine" system would work in practice, what it would cost, or whether it would provide a reasonable substitute for the deterrent effect that is apparently operating in the product liability field under the tort-litigation system.¹¹

In sum, the second greatest problem with a no-fault product liability system is that it may compromise the Task Force's goal of placing the incentive for risk prevention on the party or parties who are best able to accomplish that goal. This problem might be avoided if the system were designed to place the cost of accidents on the manufacturers who are responsible for them. Nevertheless, if a no-fault system were designed to accomplish that goal, it might have to bear many friction or transaction costs--costs the system is supposed to eliminate. Thus, an alternative approach to the problem would be the use of so-called "tort fines." This approach is, at present, in too nascent a stage for the Task Force to approve or disapprove of it. We do conclude that this problem area deserves more study and evaluation should a legislature consider adopting a no-fault system in the area of consumer product injuries.

Summary and Conclusions

Proposals relating to product liability no-fault approaches for consumer-related injuries are perhaps the most frustrating of remedies that the Task Force has studied. On one hand, there are very strong reasons for recommending such systems, e.g., they may bring more certainty into product liability law, increase the number of persons who are compensated and render such compensation more precise, and also have the potential of reducing transaction costs. On the other hand, no-fault brings with it major problems in regard to designing both a means and scope of insurance coverage, resolving causation issues and ensuring that the system places sufficient incentive for safety on manufacturers of products.

Unless the tort-litigation system can be stabilized, we believe that the pressures toward developing a no-fault compensation system will continue. These pressures may accelerate if Worker Compensation is made an exclusive remedy for product-related injuries that occur in the workplace. Nevertheless, no-fault does not represent an immediate solution to the product liability problem, and these pressures may be directed toward a practical impossibility. First, modified no-fault plans do not appear to be responsive to those pressures. They leave too much to chance. On the other hand, we are uncertain whether a practical no-fault first-party system can be developed, a system both large and small private insurers would be willing to underwrite and service at insurance rates that would be both available and affordable for large and small businesses.

In our research, however, we did not conduct an exhaustive analysis of such a system. We conclude that it would be useful to conduct an additional study to determine whether a practical working model could be developed that would:

1. Resolve problems related to coverage as identified herein. How does one expand the right of consumers to recover beyond that presently available in the strict liability tort-litigation system and avoid placing an intolerable cost burden on the no-fault system? Will

the savings rendered by the elimination of pain and suffering damages avoid that cost burden?

2. Resolve problems of causation and other individualized issues that have a special importance in the area of product liability, without bringing back transaction costs that no-fault is supposed to eliminate.
3. Resolve whether a practical product liability no-fault system could be formulated that did not require the formation of an independent agency.
4. Resolve how the system could place proper incentives for risk prevention on manufacturers whose defective products cause injuries. Would it be necessary to allow subrogation to accomplish this goal? Could a system that included tort fines be an adequate substitute for the tort-litigation system?

If these problems cannot be resolved within the context of a product liability no-fault system, the study might indicate whether they could be resolved in a broader no-fault system that went beyond product liability.

ARBITRATION

Introduction to the Problem

Arbitration is a process whereby a dispute is decided in an informal procedure by a group of individuals who are experienced in the relevant subject matter area (usually called a panel). Whereas knowledge of the subject matter area would often result in a juror's being regarded as unacceptable under the tort-litigation system, it may serve to qualify an individual to be an arbitrator. Nevertheless, arbitrators are usually unaware of the facts of a particular case that comes before them; they are familiar with the technical nature of the subject matter they are asked to decide.

Arbitration is not a "no-fault" remedy; presumably, the panel would be subject to standard product liability law (rules of liability and damages). Nevertheless, arbitration represents a

major alternative method for compensating persons injured by products in that the traditional trier of fact, the jury, has been replaced and the fact-finding process takes place under informal evidentiary rules. For this reason, we have discussed the remedy in this section.

While two of our contractors discussed the use of arbitration in product liability cases (see Volume VI, Legal Study at p. 144-182; Insurance Study at p. 4-88), neither they nor the Task Force gathered independent data as to how arbitration would work in product liability cases. It would seem that the unavailability of such data is due to the fact that the process has not been widely utilized in the area of product liability.

Nevertheless, it has been suggested to the Task Force that arbitration may be a very effective product liability remedy. It is said that arbitration can preserve the common law concept of individual responsibility (thus obviating one of the principal criticisms of no-fault compensation system. See p. 225 above), while bringing with it some of the principal advantages of no-fault, such as the lowering of transaction costs. We also note that both our legal and insurance contractors were quite favorable toward this remedy. See Volume VI, Legal Study at pp. 147-149; Insurance Study at p. 86. Our independent consideration of it has led us to be favorable toward it also.

Proposed Solutions to the Problem

The Format of Arbitration in Product Liability Cases

Two principal arbitration formats were discussed by our legal contractor. The first was voluntary binding arbitration. This occurs where the parties, usually before a dispute arises, voluntarily agree to arbitrate potential differences. Specific medical malpractice arbitration statutes authorizing this type of arbitration have been adopted in at least nine states. See Statutory Provisions for Binding Arbitration of Medical Malpractice Claims, N.C.H.S.R. Research Report Series (U.S. Department of HEW, 1976).

This form of arbitration might be used in a product liability context if a buyer agreed to arbitrate disputes about injuries at

the time he purchased a product. He would have to do this willingly and be informed about the process; otherwise, the agreement might be deemed invalid if challenged in court. See Volume VI, Legal Study at pp. 177-178. As our Legal Study suggests, however, it may be much easier to implement voluntary arbitration agreements in the area of medical malpractice than in product liability. In that connection, with regard to many products (especially small everyday purchases), it would be difficult to create a sales situation in which the agreement would be conspicuous and the purchaser would be aware of its content. We assume that a purchaser's voluntary arbitration agreement could not bind a non-purchaser. Our Legal Study made no recommendations how such persons (either non-purchaser users or bystanders) could be covered by agreements made at the time a product was purchased.

In sum, initial exploration of the arbitration remedy suggests that voluntary binding arbitration is not as workable in the area of product liability as it may be in the area of medical malpractice.

A second format of arbitration is compulsory binding arbitration. In effect, the law would substitute arbitration for the present jury fact-finding process. Our Legal Study reviewed state court decisions and indicated that they suggest that such a proceeding would be unconstitutional as a deprivation of an individual's right to a jury trial. See Volume VI, Legal Study at pp. 154-159. Our Legal Study did not determine whether a Federal law that substituted arbitration for jury trials in both state and Federal courts would violate the Federal constitution. We are aware that because of the supremacy clause, such a law would not be subject to infirmities under state constitutions, but it probably would violate the seventh amendment to the United States Constitution. See Ex Parte Peterson, 253 U.S. 300, 310 (1920). In any case, the current product liability problem may not justify so drastic a remedy; therefore, we believe it best to consider other formats for arbitration.

A third form of arbitration is compulsory and non-binding. The Task Force staff has been informed that this method of arbitration is under consideration by the Office for Improvements in the Administration of Justice of the Department of Justice as

a method of alleviating court congestion in the Federal courts. See also "The Chilling Impact of Litigation," Business Week pp. 58-60 (6/677).

This approach attempts to render arbitration final in most cases, but it still provides an outlet for judicial de novo review where one party believes that the arbitration process has resulted in an unfair determination of the facts of the case. When the process is structured, legislators must engage in a very delicate balancing of competing considerations. If de novo review is made too easily obtainable, the cost saving benefits of arbitration will be lost.

Thus, compulsory non-binding arbitration procedures may require a party seeking review of an arbitration award to pay all costs (perhaps including attorneys' fees) if the finding in the de novo review is in accord with the arbitration determination. Also, the statute may permit the findings from the arbitration proceeding to be introduced before the trier of fact in the de novo review. Obviously, constitutional problems may arise in this area, and we will discuss them briefly herein.

Constitutional Problems With Compulsory Non-Binding Arbitration

Our legal contractor concluded that compulsory non-binding arbitration is likely to be upheld as constitutional as long as a plaintiff's access to a de novo review of the arbitrators' finding has not been unreasonably hampered. See Volume VI, Legal Study at pp. 155-156. The report suggested that if a successful constitutional challenge were to arise, it would be more likely to involve state rather than Federal constitutional provisions. A review of recent cases undertaken by a member of the Task Force staff confirmed the legal contractor's conclusion.

Constitutional challenges are likely to arise under the due process or equal protection clause of the fourteenth amendment of the federal constitution and analogous state law provisions. Some courts would probably require the state to justify specialized treatment for product liability cases. Therefore the legislative history underlying such legislation should show the existence and degree of the product liability problem and how the arbitration remedy has or promises to have an effect on

forestalling or abating the problem. See Jones v. State Board of Medicine, 555 P.2d 399, 414 (Idaho 1976) (discussing that state's 1975 hospital-medical liability act).

Perhaps the most serious challenges to compulsory non-binding arbitration procedures arise under the right-to-jury provisions of state constitutions. As indicated above, an arbitration proceeding is only likely to reduce costs if it contains some deterrent to a multiplicity of appeals from the arbitration procedure. The limited case law available suggests that such restrictions are likely to be upheld if the state can show that: (a) the present product liability system has created a serious problem; and (b) compulsory binding arbitration has the potential for dealing with that problem, and it is superior to alternative approaches that would allow trial by jury to continue unabated. See Carter v. Sparkman, 335 So. 2d 802 (Fla. 1976); Comiskey v. Arlen, 390 N.Y.S.2d 122 (S. Ct. App. Div. 1976). While some decisions may appear to the contrary, see Graley v. Satayatham, 74 O.O.2d 316, 343 N.E.2d 832 (Comm. Pl. 1976); Simon v. St. Elizabeth Medical Center, 3 O.O.3d 164, 355 N.E.2d 903 (Comm. Pl. 1976) (indicating that a compelling governmental interest would be necessary to sustain the legislation), our Legal Study suggests that they are not in accord with constitutional precedent. See Volume VI, Legal Study at pp. 161-162. See also Sparks v. Wyeth Lab. Inc., 431 F. Supp. 411 (W.D. Okla. 1977).

Therefore, a review procedure that imposed costs on the appealing party (if he lost) and allowed the admission in evidence of the results of the arbitration proceeding would probably be sustained as constitutional if it could be shown that there was a product liability problem and that a compulsory arbitration procedure was a reasonable way to resolve it. Cf. ExParte Peterson, 253 U.S. 300,308 (1920).

It should be remembered that procedural and monetary impediments for review can be so unreasonably great that some courts could find that they¹² impair plaintiff's right to jury trial under state constitutions and possibly even under the federal constitution.

It should also be noted that particular state constitutional provisions can nullify state compulsory non-binding arbitration

legislation. Federal legislation would be insulated from this scrutiny as a result of the supremacy clause. See Wright v. Central DuPage Hospital Association, 347 N.E. 736 (Ill. 1976) (statute deemed contra to the state constitutional provision investing the entire and exclusive judicial power of the state in the state courts).

Structure of the Arbitration Panel

Under any of the forms of arbitration set forth above, a decision must be made about the structure of the arbitration panel. Our legal contractor only provided a limited amount of information on this subject. We note that the size of the panel may depend on the importance of the case before the court. Thus, the South Dakota statute specifies three to five members, depending on the amount in controversy and the number of parties. See Statutory Provisions for Binding Arbitration of Medical Malpractice Claims, N.C.H.S.R. Research Report Series p. 6 (U.S. Dept. of HEW, 1976). The minimum panel of three might typically be composed of an expert in the relevant technological area, an attorney familiar with product liability law and a layman. The reason for supplying the expert and the attorney is self-evident. Our Legal Study suggests that a layman should be on the panel in order to provide some insight as to the average person's reactions and expectations with respect to products. See Volume VI, Legal Study at pp. 175-176.

The process by which these three persons (or additional persons in the case of larger panel) would be selected in a fair and neutral way is an issue deserving further treatment in the study of this remedy.

Alleged Benefits of a Product Liability Arbitration Process

Three of the principal benefits that may arise from the use of compulsory binding arbitration in the area of product liability are that it would provide a more accurate determination of cases, reduce the transaction costs and expedite the reparations process. These benefits closely parallel some of the major considerations that the Task Force has considered favorable indicia of product liability remedies. We will examine each of these in turn.

A more accurate determination of product liability cases

It has been argued that an arbitration process that includes an expert, an attorney and a layman can render a more accurate decision in the area of product liability than is available under the present jury system. It is alleged that such a group would be able to comprehend more fully the esoteric details of product liability cases. It is said that over time a resource bank of relatively neutral experts could be developed. This, in turn, would serve to mitigate the problem of the "biased expert" that allegedly exists under the present tort-litigation system. See pp. 47-52. In that regard, it is suggested that a qualified arbitration panel would be less easily misled (in technical areas) than a jury of laymen. Also, it is said that arbitrators would be less affected by emotional aspects of the case or by the defendant's ability to pay or by the artistry of counsel. See Volume VI, Legal Study at p. 182.

Finally, it has been observed that the privacy of arbitration proceedings (as compared to a judicial proceeding) would prompt more complete revelation of special manufacturing designs or processes. This, in turn, would allow for more accurate judgments. See Volume VI, Legal Study at p. 153. Because, however, there has not been sufficient experience either in the area of medical malpractice or in large-scale product liability arbitration, we have no data about these alleged benefits.

Obviously, if more consistency were developed in the fact-finding process of product liability cases in terms of determining both the liability and damage issues, insurers would have a more accurate basis for fixing product liability insurance rates. See Volume VI, Legal Study at p. 175. It is maintained that over time, product liability arbitrators would develop a consistent perspective about liability and damage issues. If this did occur, the process would relieve some of the uncertainty that has been a basic cause of the product liability problem. See Briefing Report at 13.

Further investigation into the awards rendered by an arbitration panel in those states having compulsory, non-binding medical malpractice arbitration statutes and the insurers'

ratemaking reaction to the results of those statutes might provide more information on the subject.

The process will reduce accident reparation costs

Limited data from a study about voluntary binding arbitration in the area of medical malpractice have shown that the process promoted settlement of cases and resulted in an 18 percent reduction in investigation and defense costs. See Volume VI, Legal Study at p. 151 referring to the Heintz Study, N.C.H.S.R. Research Report Series, p. 3 (U.S. Department of HEW, 1975). If this experience could be transferred to the field of product liability, it would reduce defense costs and also the amount of the contingent fee. See p. 230. above. On the other hand, if frequent appeals were taken from initial arbitration proceedings, the process could increase overall insurance costs. According to our Legal Study, under Pennsylvania's compulsory arbitration plan for all civil claims less than \$10,000, the appeal rate has been less than 10 percent. See Volume VI, Legal Study at p. 163. Compulsory arbitration of smaller claims (under \$3,000) has resulted in less than 5 percent appeals in over 70,000 cases. Id. A 1965 study shows, however, that in cases involving more than \$1,000, the process was reduplicative in that 40.9 percent of the cases were appealed. See Note, "Arbitration and Award," 113 U. Pa. L. Rev. 1117 (1965).

Nevertheless, it has been argued to the Task Force that if product liability arbitration statutes were limited to small claims, the net result might be an increase, not a decrease, in overall insurance costs. In this regard, it is assumed that the inexpensiveness of arbitration, as opposed to a court procedure, might generate more small claims. See Volume VI, Legal Study at pp. 173-174.

In light of the preliminary data from the ISO Closed Claim Survey, it does appear that if arbitration is to have a substantial impact on costs, it should be extended to the larger as well as the smaller claims. The system must discourage appeals in all but potentially meritorious cases, e.g., by imposing costs on an unsuccessful appellate and also by allowing the introduction of the arbitration's finding of fact and conclusion in evidence at the trial de novo.¹³ As has been

indicated, however, if the system imposes too great a restriction on an individual's right to appeal, some courts could possibly find that it unreasonably restricts the right to trial by jury. See pp. 230-231.

In any case, because of the problems with large product liability claims and because a voluntary arbitration system in the area of product liability may not be effective (see p. 189), the reported results of the Heintz Study (showing an 18 percent reduction in investigation and defense costs) may not be transferable to product liability.

While our Legal Study appeared to assume that arbitration panels would be less costly than juries, it did not provide data as to the relative costs of paying for the time of an arbitration panel as compared with a jury. It did state, however, that since persons are unlikely to volunteer their services in product liability, any regular arbitration process as a substitute for trial would have to remunerate the personnel involved. See Volume VI, Legal Study at p. 171.

The study also noted that complex product liability claims which require lengthy hearings could not be handled adequately in short evening or weekend sessions (unlike low-level commercial arbitration). Id.

Nevertheless, the study suggests that arbitration may lower the costs of experts because a presumably "neutral" expert is already on the panel. In some cases, the parties may decide there is no need to bring in additional experts. In other cases, where experts are presented as witnesses, there should be a saving of time because a panel member already understands the subject matter in controversy. In sum, arbitration may avoid the "battle of the experts" syndrome that has plagued the tort-litigation system.

Aside from lowering transaction costs, arbitration may also reduce accident compensation costs because awards may be lower. This is alleged to be true because a panel would be likely to be less emotional than a jury in evaluating awards for pain and suffering. It can also be more precise in estimating loss of future earnings and future medical costs. Finally, a periodic

payment system might be easier to implement under an arbitration system than under the current tort-litigation system. See p. 67. Assuming that awards would be lower, however, representatives of the plaintiff's bar might contend that in substantial product liability cases a jury of laymen is better able to understand the costs of pain and suffering than a specialized arbitration panel.

It may expedite the reparations process

While this consideration overlaps the previous one, it can be differentiated: two processes may cost the same amount, but one may be more expedient than the other. It is said that arbitration is more expedient than a jury trial because the arbitration process utilizes informal means of proof. This can reduce the length of time it takes to decide a case. Also, an experienced panel would be familiar with the topic of product liability, which would eliminate the need for teaching the trier of fact about the fundamentals of a product liability case. See Volume VI, Legal Study at p. 153.

The arbitration group studied by Heintz showed that the process achieved a more expeditious resolution of claims than those operating under the tort-litigation system. See Heintz Study (p. 3) cited above at p. 230. Nevertheless, as has been pointed out, that study dealt with voluntary binding arbitration, had limited data, and operated in a different subject matter area (medical malpractice).

Summary and Conclusions

Information brought to the attention of the Task Force suggests that arbitration of product liability is a remedy worth further study and consideration. Of the variety of forms of arbitration, preliminary indications suggest that compulsory non-binding arbitration is the most appropriate for product liability cases. Preliminary indications also suggest that product liability arbitration is likely to bring about an overall reduction of insurance costs only if larger as well as small claims are included within its scope of coverage.

Difficult value judgments abound in this area because a fundamental of American jurisprudence, the jury, is being

supplanted by a smaller and more expert group. We cannot at this time prove conclusively that the process would prove more predictable, save costs or expedite the judicial process. Nevertheless, our analysis indicates that a properly constructed arbitration system has an excellent potential for achieving these goals.

NOTES TO ALTERNATIVE METHODS FOR COMPENSATING
CONSUMER PRODUCT INJURIES HEREIN NO-FAULT
COMPENSATION SYSTEMS AND ARBITRATION

¹The survey showed that from 1970 to 1975, plaintiffs were successful in 35 percent of the litigated cases. In downstate Illinois, the success rate increased to 49 percent. See Volume III, Legal Study at pp. 26-27.

²A recent study of secondary sources conducted by the Department of Transportation concluded that state automobile no-fault statutes provide quicker and more precise benefits than the tort-litigation system. See State No-Fault Automobile Insurance Experience 1971-1977, p. 78 (D.O.T. 1977).

³See Minutes, Meeting of Insurance Commissioners with Task Force Chairman, Project Director and staff at U.S. Department of Commerce (11/11/76).

⁴We note that in the Worker Compensation area, two out of five permanent injury and death cases are litigated. Workers' Compensation: Is There a Better Way? at 27 (1977).

⁵See e.g. Royal Indemnity Co. v. Government Employees Ins. Co., 307 So. 2d 458 (Fla. App. 1975); McConnell v. Fireman's Fund Ins. Co. 79 Misc. 2d 219, 359 N.Y.S. 2d 224 (Sup. Ct. 1974).

⁶See note 1.

⁷S.F. No. 2000 (1976). See also O'Connell, "An Elective No-Fault Liability Statute," 1975 Ins. L.J. 261.

⁸This assumes that the lawyer's contingent fee would be based on the amount of money he obtained in the tort system.

⁹See Note 7. More recently, Professor O'Connell has suggested that a separate government agency could be established to protect accident victims from no-fault elections which might be designed to operate unfairly. See Volume VI, Legal Study at p. 116.

¹⁰The outlines of the plan are set forth in 1975 Ins. L.J. 199; it is more fully developed in Freedom, "No-Fault and Product Liability: Can One Live Without the Other?" 12 The Forum 100 (1976).

¹¹For a statutory example of the Tort Fine Concept see S. 1381, Sec. 1038(c), 95th Cong. 1st Sess. (1977).

¹²See Johnson v. Burch, DOC No. 111/97816-099191 (Balt. City Ct. 6/6/77). The Maryland medical malpractice arbitration statute's impediments for review included the following:

- (i) assessment of costs against claimant;
- (ii) additional cost of experts at arbitration proceeding;
- (iii) time consumed by the arbitration;
- (iv) possible delay occasioned by seeking to have award modified or vacated by court prior to trial on merits;
and
- (v) presumption of correctness of award.

The court held that these impediments collectively constituted an unreasonable restriction on a claimant's right to jury trial under the state constitution. The case is illustrative of the difficulty legislators face in balancing the right to jury trial against the need to discourage non-meritorious appeals under a system of arbitration.

¹³In Michigan, a mediation program in force since 1971 allows a de novo review from an evaluation. But, if the litigant fails to improve his situation by 10 percent over the original evaluation he must pay the costs of trial, including his opponent's attorney fees. See also Volume VI, Legal Study at pp. 173-174.

Part VII
Synthesis of Chapter and Conclusions

SYNTHESIS OF CHAPTER AND CONCLUSIONS

This is a highly condensed synthesis of the conclusions set forth in Chapter VII. Policymakers and other persons interested in remedial proposals in the area of product liability are cautioned to read the full text in regard to each remedial proposal. This synthesis is presented for the convenience of readers who wish to get an overview of some of the conclusions drawn from this chapter. We will set forth our conclusions in regard to five basic areas:

- I) Modification of Substantive and Damage Rules Within the Tort-Litigation System
- II) Third-Party Claims and Workplace Injuries
- III) Modification of Product Liability Insurance Mechanisms
- IV) Remedies Relating to Product Liability Loss Prevention
- V) Alternative Methods for Compensating Consumer Product Injuries: No-Fault Compensation Systems and Arbitration

Each of the remedial proposals in this chapter was evaluated in as objective a manner as possible while deriving some assistance toward that goal from the six considerations set forth below.

-Ensure that a person injured by an unreasonably unsafe product receives reasonable compensation for his or her injury.

-Ensure the availability of "affordable" product liability insurance with adequate coverage to manufacturers that engage in reasonably safe design and control practices.

-Place the incentive for risk prevention on the party or parties who are best able to accomplish that goal.

-Expedite the reparations process from the time of injury to the time the claim is paid.

-Minimize the sum of accident costs, prevention costs, and transaction costs.

-Emphasize is comparatively specificity and concreteness in nature and format.

These considerations were sometimes at cross-purposes with each other. Also, other considerations entered into our *remedy discussions. Considerations were balanced in light of what was basically fair to all of the groups that had an interest in the product liability problem.

Please note that the remedial proposals dealt with in Chapter VII do not focus on reform in product liability insurance ratemaking procedures. Our discussion of that topic appears in V, p. V-25.

MODIFICATION OF SUBSTANTIVE AND DAMAGE RULES WITHIN THE TORT-LITIGATION SYSTEM

INTRODUCTION

This report has identified uncertainties in the tort-litigation system as one of the three basic causes of the product liability problem. See Chapter I at p. 20. As the Legal Study's examination of the case law showed, the law of product liability has become filled with uncertainties, creating a "lottery" for injured parties, manufacturers and ratemakers. A basic cause of these uncertainties is a doctrinal conflict as to whether product liability law should be a compensation system for persons injured by products or a means of apportioning responsibility based upon some reasonable standard. This tension has arisen because strict liability theories suggest that they are to place more responsibility on a manufacturer than ordinary negligence law principles. Nevertheless, most courts, for reasons of policy, have stated that they wish to stop short of imposing absolute liability on product defendants: the tort-litigation system is not to be converted into a pure state accident insurance system.

There have been over ten years of intense litigation in the area of product liability since the development of so-called "strict liability" under Section 402A of the Restatement (Second) of Torts. While further experimentation by the states might produce more insights on the topic, this potential benefit must

be balanced against the strong need for predictability in this important area: product users, manufacturers and insurers would benefit from this development.

Two routes toward the development of greater predictability can be pursued at the same time.

The first is the development of a set of rules covering the more important aspects of product liability law. These rules would adhere to the basic tort-litigation system (see p. VII-14 - VII-15). The Task Force has not decided whether these rules should be formulated at the Federal or state level; rather, it has left that issue for policymakers to determine in light of the content of this report as well as other information that is available on the topic of product liability.

The other path is to engage in further study of the utility of a no-fault compensation system. While this report does not resolve the ultimate issue of whether no-fault should or should not be used in the area of product liability, it defines the issues that must be resolved before a decision of that kind can be made. While the Task Force has not determined whether this study should be undertaken at the Federal or state level, it suggests that duplicative efforts be avoided.

BASIC STANDARD OF RESPONSIBILITY

The basic standard of responsibility for product liability cases should separately identify problems relating to defects in construction from defects in design and defects based on a failure to warn.

For example, where a product is not made in accordance with the manufacturer's own specification (a defect in construction) and this causes an injury, many sources agree that the manufacturer should be held liable. On the other hand, when the defect is one of design or failure to warn, a balancing of considerations may be necessary. These considerations include the foreseeability of harm and the seriousness of harm, the utility of the product and the economic burden on the manufacturer to avoid the risk. See pp. VII-15 - 18 for details.

MODIFICATION OF RULES RELATING TO THE AGE OF PRODUCTS

There is some merit in the suggestion that the tort-litigation system should set forth a period of time where a manufacturer's duty would terminate. A useful life duty limitation, while useful in some respects, is unlikely to achieve that goal.

On the other hand, fixed statutes of repose can work an unfair hardship on injured parties. In an attempt to balance the interests of all concerned, it is useful to separate workplace and non-workplace (or consumer) product-related injuries. Also, to protect the product user, the rule must account for products whose danger may not become manifest until a long period of time after product use. The details of our conclusions are set forth on pp. VII-18 - 28 of this report.

A DUTY LIMITATION FOR UNAVOIDABLY UNSAFE PRODUCTS

While a balancing of considerations suggests that manufacturers should not be deemed liable for injuries caused by unavoidably unsafe products, shielding the manufacturer could leave a seriously injured consumer without compensation. Also, the exception does not fully satisfy the interests of manufacturers or liability insurers because they continue to be subject to defense costs.

Long-term resolutions in this topic area seem particularly suited to more major modifications in tort law. For more detail in this matter, the reader is directed to p. VII-29.

THE DEVELOPMENT OF PREDICTABLE LEGAL STANDARDS FOR PRODUCT LIABILITY CASES

State-of-the-Art Defense

It would be inadvisable for product liability law to adopt a state-of-the-art defense based on the standard customarily used in an industry. On the other hand, courts that deem the technological state-of-the-art totally irrelevant fuel the uncertainty in product liability law.

This report suggests that a specific aspect of a product should not be deemed defective if it conformed to a practical and reasonable design standard at the time of manufacture. On the other hand, the report does not endorse independently created voluntary standards per se; the report suggests that consideration should be given to developing a presumption in favor of standards that are objective, rigorous when formulated, and up-to-date when the product was produced. It is essential to understand the nuances of these conclusions; they are set forth at pp. VII-33 - 37.

Compliance With Legislative or Administrative Standards Defense

There may be some incentive toward risk prevention if a manufacturer was given a tort law benefit on the basis of its compliance with appropriate legislative or administrative product standards. Nevertheless, a loose application of that benefit could have the opposite effect.

If a court found that such a standard was objective and rigorous when formulated and also up-to-date at the time the product was produced, it might be appropriate to create a rebuttable presumption that the product conforming to it was reasonably safe in regard to that specific standard. See pp. VII-38 - 40.

Although strong arguments have been made to the contrary, it would seem inappropriate to treat compliance with Federal standards differently from compliance with state standards in the context of product liability law. This assumption might change if standards for product liability law were specially formulated. See p. VII-40.

Regulation of Expert Testimony

Courts might make wider use of court-appointed experts under a procedure similar to that outlined in Federal Rule of Evidence 706. Also, when experts are utilized in major product liability cases, the court could hold a preliminary hearing to test the qualifications of experts under a procedure outlined in this report at p. VII-42 - 46.

The remedy of arbitration might get closer to the heart of problems related to expert testimony in product liability cases. See Chapter VII at p. 229.

MODIFICATION OF RULES RELATING TO CONDUCT ON THE PART OF PRODUCT USERS

In some situations, it may be proper for courts to impose a duty on manufacturers to warn about potential misuses of a product. While it is just to permit manufacturers to know the exact nature and extent of this duty, there does not appear to be a readily available neutral source that could formulate that responsibility.

A remedy that places a rational limit on a manufacturer's responsibility for injuries caused by product misuse while still affording protection to the product user is a comparative responsibility system. That system can also be utilized when a third party has misused the product and this has resulted in an injury to plaintiff. The system also may be useful where an individual has used a product in its intended manner, but unreasonably failed to discover the defect or used the product knowing of the defect. Caution must be exercised in implementing the remedy so as not to diminish the manufacturer's basic responsibility of providing a product "without a defect in light of the reasonable expectations of the consumer." Details of this complex topic are set forth at p. VII-46 and II-19.

PROPOSED MODIFICATIONS OF SOME BASIC PRODUCT LIABILITY LAW RULES THAT RELATE TO DAMAGES

Modifications of rules relating to damages have the potential of providing greater rationality and stability to the tort-litigation system. See p. VII-56.

Attorneys' Fees

While most proposed solutions to the product liability problem that relate to attorneys' fees focus on the plaintiff attorney's contingent fees, data suggest that it is defense costs that directly affect the cost of product liability insurance.

Remedies that foster settlement and decrease the need for litigation reduce this cost. See p. VI-62.

The contingent fee may, on occasion, tempt an attorney to bring a frivolous lawsuit. To alleviate this problem, it may be more appropriate to penalize those specific attorneys by imposing sanctions against them (such as taxing defense costs) than it is to abolish the contingent fee system. See p. VII-62.

The greatest potential abuse in the contingent fee system would appear to arise in some high verdict cases. In such situations an attorney may receive a windfall. For that reason, some state courts have adopted a sliding scale contingent fee system. While this system makes sense in many situations, it may be unfair to attorneys in those cases where they have devoted considerable time and effort and are deserving of a fee that is above the sliding scale. See p. VII-59.

While the suggestion of coupling the elimination of awards for pain and suffering with having the court award plaintiff's attorney his fee is an intriguing one, the practical difficulties connected with its implementation preclude its utilization at this time. See p. VII-61.

Regulation of Damage Awards for Pain and Suffering

Value judgments abound in regard to the question of whether common law rules relating to damages for pain and suffering should be changed. See p. VII-64 - 69. It would appear that approaches than would limit (rather than eliminate) damages for pain and suffering have the greatest potential for balancing the variety of considerations that should be considered in formulating such a change. See p. VII-57 - 68. Since this reform has the potential of applying in all of tort law, its application in the field of product liability, alone, should be specially justified.

Modifications of the Collateral Source Rule

Proposals to modify the collateral source rule also potentially affect all of tort law. The area of product liability is one in which a selective abolition might be

justified. This should occur where product liability law is not based on fault but on principles of "risk distribution" or an "enterprise theory of liability." Very careful consideration should be given to the scope of any modification of this rule. Our discussion provides detailed information about this topic. See Chapter VII, pp. 70-75.

Restrictions on Awarding Punitive Damages

The use of punitive damages has an important potential deterrent effect. On the other hand, a single actionable wrong by a corporation can be the basis for a multiplicity of lawsuits with a multiple and potentially unreasonable imposition of punitive damages. A procedure that may mitigate any unfairness in this situation is to have the judge rather than the jury determine the amount of punitive damages. In making this determination, the judge could consider, among other factors, the amount of punitive damages the defendant has already paid. This is also a complex topic and the reader should review pp. VII-75 - 80.

Replacing Lump Sum Damages With a Periodic Payment System

Implementing a periodic payment system within the context of the tort-litigation system presents difficult technical and policy determinations. The advantages of the system make it worth considering in connection with any redevelopment of basic product liability rules. It would be useful to obtain more precise information as to whether the potential savings connected with a periodic payment system would be cancelled out by administrative costs connected with monitoring or modifying the basic fund. A periodic payment system can be more easily utilized if it is adopted with arbitration or a no-fault compensation system. See generally pp. VII-80 - 84.

THIRD-PARTY CLAIMS AND WORKPLACE INJURIES

INTRODUCTION

Most of the remedies brought to the attention of the Task Force in regard to workplace injuries involve potential shifting

of costs among the manufacturer, the employer, and the employee. Some of the considerations in this area overlap with problems relating to cost shifting among multiple parties. Permitting contribution actions among parties in the chain of manufacturing and distributing products may compromise the goal of expediting the reparations process and might also increase transaction costs. Nevertheless, the principle of contribution among defendants based on the relative responsibility of each appears to be a useful one. See p. VII-85.

CONTRIBUTION AND INDEMNITY AS APPLIED TO INJURIES IN THE WORKPLACE

An important remedial proposal that has the potential of reducing product liability premium costs for manufacturers of industrial equipment is to allow such manufacturers a contribution claim against negligent employers when their negligence contributed to an employee's product-related workplace accident. While this remedy also has the potential of reducing the number of product-related workplace accidents, a negative aspect is that it would increase transaction costs. The remedy is a complicated one with a number of alternative approaches and implications. The reader is directed to pp. VII-89 - 95:1 for detailed information on the subject.

PROHIBITION OR MODIFICATION OF SUBROGATION BY WORKER COMPENSATION CARRIERS

It would appear reasonable to reduce subrogation claims by the amount an employer was at fault in causing an injury to a worker. For a discussion of the variety of considerations involved with regard to the benefits and shortcomings of this remedy and how it might be implemented, the reader is directed to p. VII-95 - 99.

VALIDATION OF HOLD HARMLESS AGREEMENTS

It might be appropriate to legislatively validate hold harmless clauses where the buyer of the product requested that it be delivered without safety features, altered it or failed to maintain it properly. On the other hand, hold harmless clauses

can be abused and rules regarding them should take this factor into account.

Assuming both parties who sign the clause are insured, legislative validation of hold harmless clauses will have little effect on product liability rates unless insurer procedures take the existence of hold harmless clauses into account. For details about the benefits and shortcomings of proposals connected with hold harmless clauses, see p. VII-99.

WORKER COMPENSATION AS A SOLE SOURCE OF RECOVERY-- ABOLISHING THE WORKER'S THIRD-PARTY CLAIM

The cost effectiveness and potential impact of Worker Compensation as a sole source for product liability recovery have made it an attractive one for those considering product liability reform. It would appear that it should be considered along with more general Worker Compensation legislative reform. In that context, estimates can be made about the overall cost of this proposal.

If this reform is implemented, the worker must receive an appropriate benefit for foregoing his third-party claim. Also, the manufacturer of a defective product should contribute to the worker's award. A procedure for accomplishing this goal is post-accident arbitration. Very careful thought must be given to developing the details of that procedure. This overall remedy is a complex one with many competing considerations, and the reader is directed to p. VII-103¹ for a discussion of the subject.

MODIFICATION OF PRODUCT LIABILITY INSURANCE MECHANISMS

INTRODUCTION

It has been alleged that certain modifications of product liability insurance mechanisms will allow the tort-litigation system to function reasonably well and eliminate or modify the need to enact tort law modifications that would reduce the liability exposure of defendants. These mechanisms do not always deliver what they promise, and the reader is directed to our detailed discussion of this entire subject beginning at p. VII-115.

RESIDUAL INSURANCE MARKET MECHANISMS--AT THE STATE OR FEDERAL LEVEL?

While it might be worthwhile to have a variety of product liability residual insurance market mechanisms explored at the state level where their viability could be tested (the need for such mechanisms may also vary in different states), the Task Force's contractor reports strongly suggested that the very nature of product liability insurance indicates that these mechanisms must be implemented at the Federal level. This decision, while rooted in practicality, has very serious policy implications and the reader is directed to p. VII-115-118 for a detailed consideration of this issue.

RESIDUAL INSURANCE MARKET MECHANISMS--UNDER WHAT CIRCUMSTANCES SHOULD THEY BE SUBSIDIZED?

As a short-range remedy, residual product liability insurance market mechanisms might have to be subsidized if they are to have any substantial effect on product liability insurance rates. It is important to limit subsidization to insureds who face unavailability or major unaffordability problems. Otherwise, the program may establish a precedent for providing government assistance to anyone who suffers from high insurance costs. If it is necessary to subsidize residual product liability mechanisms, it would seem preferable to use public funds rather than compel stronger liability lines to support weaker ones.

Out discussion about the details and the circumstances as to whether a subsidy is justified is set forth at p. VII-119.

ASSIGNED RISK PLANS

The fact that classic assigned risk plans do not include loss-pooling mechanisms, plus problems relating to eligibility of insureds and allocations of assignments to insurers, seriously compromise the potential value of this remedy in the area of product liability. See pp. VII-127 - 130.

POOLING MECHANISMS

The topic of altering methods whereby insurance risks are pooled is a very complex one, and the reader should consult pp. VII-132 - 142. It is worthwhile to explore whether a voluntary pooling mechanism would be practicable before utilizing any mandatory pooling system. Private insurers should give further consideration to the formation of voluntary pools, and appropriate government agencies might consider developing guidelines to assist in that process. Our discussion outlines some of the major issues that persons forming a mandatory product liability pool must resolve. The lack of specific data about the effectiveness of such a device in the area of product liability made a complete evaluation of this remedy difficult.

FEDERAL INSURANCE AND REINSURANCE

It would be better to attack the causes of the overall product liability problem than to establish a program where the Federal government markets and sets rates in the area of product liability insurance. See p. VII-143. The product liability problem is a fluid one, and the need for such a program could arise in the future.

The National Swine Flu Immunization program does not appear to be an apt analogy for industries suffering particularly severe insurance affordability problems. Federal reinsurance is preferable to direct Federal insurance -- reinsurance would involve less government activity in an area currently being handled by the private insurance industry. Since Federal funds would have to be used to subsidize this mechanism (or at least be put at risk), strong policy reasons would have to support the implementation of such a program. See p. VII-119. The issues of Federal insurance and reinsurance are extremely complex, and the reader is directed to p. VII-154 - 167.

CAPTIVE INSURANCE COMPANIES

Captive insurance companies provide a potential means of relieving availability and affordability problems for some product liability insureds. A basic unanswered question is whether the device can be utilized by businesses that are

suffering these difficulties. The answer to this question depends, in part, on trade associations' willingness and ability to develop captives that would meet basic insurance regulatory requirements. Charter requirements could be drafted that would encourage the formation of adequately capitalized small business trade association captives. It may be appropriate to clarify requirements regarding Federal income tax deductions for parent corporations that utilize captive insurance companies. Details on this complex subject appear at p. VII-154.

STRUCTURED SELF-INSURANCE PROGRAMS

Tax incentives that encourage the development of structured self-insurance programs may benefit small businesses which have insufficient capital to form captive insurance companies. Self-insurance programs also may encourage product liability loss prevention, increases the capacity of the insurance industry to provide product liability coverage, and prevent situations from arising where a viable product liability claim against an uninsured small business cannot be enforced. On the other hand, the mechanics of the remedy must be carefully designed in order that it will not be subject to abuse. It may be appropriate for the Department of the Treasury to undertake a full tax evaluation of alternative forms for this particular remedy. Details about this remedy appear at p. VII-167.

REMEDIES DESIGNED TO ELIMINATE UNSATISFIED JUDGMENTS

Our data do not show that product liability judgments are highly likely to go unsatisfied. Therefore, neither mandatory product liability laws nor unsatisfied judgment funds may not be necessary at this time. See p. VII-172 - 187.

If there were relatively few cases where judgments against product manufacturers were defaulted, an unsatisfied judgment fund would be preferable to a mandatory product liability insurance law. If the problem of default judgments in the product liability area became more widespread, mandatory product liability insurance would have to be given greater consideration. From the point of view of the consumer, it is unreasonable to permit a manufacturer to sell products when he is unable to respond in damages if those products prove defective and injure

purchasers. For a discussion of the problems relating to both unsatisfied judgment funds and mandatory product liability insurance, see pp. VII-175 - 187.

REMEDIES RELATING TO PRODUCT LIABILITY LOSS PREVENTION

GOVERNMENT POOLING OR REINSURANCE MECHANISMS AND PRODUCT LIABILITY LOSS PREVENTION

Any law which allows a subsidy to individual insureds (through a reinsurance or pooling program) must include a provision that will provide product users with the assurance that the program's participants utilized reasonable product liability loss prevention techniques. See p. VII-175.

REQUIRING INSURERS TO MAKE APPROPRIATE DISCOUNTS FOR INSURED'S PRODUCT LIABILITY LOSS PREVENTION PROGRAMS

While there would be problems in requiring insurers to build into their product liability rates an appropriate discount when insureds used proper product liability prevention techniques, this is a matter that deserves further consideration by those charged with the responsibility of approving insurance rates. See p. VII-177.

REQUIRING INSURERS TO ASSIST THEIR INSURED'S IN PRODUCT LIABILITY LOSS PREVENTION

Insurers are in an excellent position to assist individual insureds in implementing sound product liability loss prevention programs. There are serious problems with making a requirement of this type mandatory. Further consideration might be given to whether an appropriate surcharge might be added to product liability insurance which would allow a mandate of this type to be implemented. See pp. VII-180 - 182.

GOVERNMENT ACTION IN ASSISTING BUSINESSES IN THE AREA OF PRODUCT LIABILITY LOSS PREVENTION

Under existing legislation, it would be possible to ask an appropriate agency to coordinate product risk information for a

variety of agencies and make it available to manufacturers that could benefit from it. See pp. VII-183 - 186.

It is less certain that the government should engage in providing direct technical assistance to product manufacturers in the area of product liability loss prevention techniques. Personnel capable of providing such assistance may already exist in the private sector.

ALTERNATIVE METHODS FOR COMPENSATING CONSUMER PRODUCT INJURIES: NO-FAULT COMPENSATION SYSTEMS AND ARBITRATION

NO-FAULT COMPENSATION SYSTEMS

Unless the tort-litigation system can be stabilized, pressures toward developing a no-fault compensation system in the area of product liability will continue. These pressures may accelerate if Worker Compensation is made an exclusive remedy for product-related injuries that occur in the workplace. Nevertheless, pure or modified no-fault plans do not represent an immediate solution to the product liability problem, and these pressures may be directed toward a practical impossibility. On the one hand, modified no-fault plans do not appear to be responsive to those pressures because they leave too much to chance. On the other hand, it is uncertain whether a practical pure no-fault first-party system can be developed -- a system both large and small private insurers would be willing to underwrite and service at insurance rates that would be available and affordable for large and small businesses.

It would be useful to conduct additional research to determine whether a practical working model could be developed that would:

- (1) Resolve problems related to coverage.
- (2) Resolve problems of causation and other individualized issues that have a special importance in the area of product liability.
- (3) Resolve whether a practical product liability no-fault system could be formulated that did not require the formation of an independent government agency.

- (4) Resolve how the system could place proper incentives for risk prevention on manufacturers whose defective products caused injury.

No-fault systems in product liability present a very complex topic. For a discussion of the topic and an explanation of these specific issues, see pp. VII-202 - 234.

ARBITRATION

Arbitration of product liability is a remedy worth further study and consideration. Of the variety of forms of arbitration, preliminary indications suggest that compulsory non-binding arbitration is the most appropriate for product liability cases. Preliminary indications also suggest that product liability arbitration is likely to bring an overall reduction of insurance costs only if larger as well as small claims are included within its scope of coverage.

Difficult value judgments arise in this area because a fundamental of American jurisprudence, the jury, is being supplanted by a smaller and more specialized group. At this time, there is no conclusive proof that the process would be more predictable, reduce costs, or expedite the judicial process. Nevertheless, our analysis indicates that a properly constructed arbitration program has an excellent potential for achieving these goals. See pp. VII-224 - 234.

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